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NATURE TOURISM IN ASIA

OPPORTUNITIES AND CONSTRAINTS
FOR CONSERVATION AND
ECONOMIC DEVELOPMENT



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Nature Tourism in Asia:

Opportunities and Constraints for Conservation and Economic Development

Edited by:

Julia Nenon and Patrick B. Durst



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TABLE OF CONTENTS

	<i>Preface</i>	<i>iv</i>
1.	<i>Nature Tourism as a Tool for Economic Development and Conservation of Natural Resources</i> Jan G. Laarman and Patrick B. Durst	1
2.	<i>Nature Tourism in Nepal</i> Tracey Parker	21
3.	<i>Nature Tourism Profile: Thailand</i> Santi Chudintra	31
4.	<i>Nature Tourism Profile: Indonesia</i> Abdon Nababan and Arief Aliadi	43
5.	<i>Nature Tourism in Sri Lanka: Activities, Constraints, and Potential</i> Pani Seneviratne	55

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PREFACE

A basic premise that has emerged in recent years is that environmental protection and economic development go hand in hand. Indeed, in many cases, it appears that the two are inextricably linked. Experience has further demonstrated that destroyers of the environment often become enthusiastic advocates of resource conservation when given the opportunity to share in the benefits of long-term sustainable resource management.

Conservationists around the world are increasingly seeking innovative resource management strategies that provide for the needs of local communities and contribute to national and regional economies without destroying or degrading natural ecosystems. For many countries and localities, nature tourism (or "ecotourism") offers one such strategy for economic development based on non-extractive sustainable resource management.

Special interest travel, including nature tourism, is the fastest growing segment of tourism development today. North Americans, Europeans and Australians, in particular, are seeking exotic travel destinations--often combining natural history and adventure opportunities. Nature tourism is different from mass tourism in that it seeks to limit ecological damage from tourism activities and in-

crease awareness of ecology, environmental protection, and natural history. Additionally, nature tourism is viewed by proponents as attracting a relatively tolerant, well-educated, up-scale clientele with a genuine concern for natural resources protection.

Obviously, nature tourism is not without risks. The world is blighted with popular destinations that have been "loved to death" by eager tourists who demanded ever-greater amenities and increased access to fragile resources until carrying capacities were overwhelmed. Similarly, tourism has frequently been criticized for inducing undesirable social changes in local ethnic cultures and adversely distorting local economies.

To better understand the emerging role of nature tourism in Asia and its growth in popularity, the Forestry Support Program commissioned studies of nature tourism in Nepal, Thailand, Indonesia, and Sri Lanka, as well as a general review of opportunities and constraints associated with nature tourism development. These five reports are compiled in this publication with the hope that their dissemination will help development and conservation planners better assess the potential benefits, risks, and opportunities of nature tourism in Asia.

NATURE TOURISM AS A TOOL FOR ECONOMIC DEVELOPMENT AND CONSERVATION OF NATURAL RESOURCES

Jan G. Laarman and Patrick B. Durst

INTRODUCTION

Over the last few decades, tourism has been one of the world's largest growth industries. Tourism revenues account for approximately one-fourth of the world's international trade in services. For the year 1988, spending on domestic and international travel comprised 10-12 percent of world gross production, or some US\$2 trillion (D'Amore 1988). In that same year, tourism earned the developing countries an estimated \$55 billion, of which nature tourism's share was probably between \$2 billion to \$12 billion (Lindberg 1991).

In the industrialized countries, nature tourism is not new (Kusler 1990). For 250 years, residents of London have been visiting the English Lake District. Visitations to Yosemite National Park date back a century, and regions of New England and the Great Lakes have attracted nature-oriented tourists for decades. New, however, is increasing international travel to relatively remote areas of Africa, Latin America, and Asia for purposes of experiencing their natural attractions. New, too, is that an increasing number of domestic travellers in the developing world are visiting natural attractions in their own countries.

According to a long-time observer of nature tourism in both industrialized and developing countries, the rapidly building interest in nature tourism can be attributed to several emerging social and psychological preferences on the part of tourists across many cultures and countries (Kusler 1990):

- increased concern with the physical "environment," including general and specialized interests in nature conservation;
- discontent with overuse and crowding in "mass tourism" experienced at many conventional tourist destinations;
- pursuit of new learning experiences rather than manmade entertainments; and

- perceptions that many of the natural environments throughout the world are disappearing, and must be visited now, if ever.

To these recent psycho-social trends can be added other explanations favoring the growth of nature tourism. Very importantly, policymakers and managers of the world's national parks and other protected natural areas increasingly accept that these areas should be open to human visitation, and are not to be locked up solely for nature protection. Also, infrastructure in roads, hotels, campsites, and transportation facilities is improving in many regions previously considered remote or even inaccessible.

Another factor is that government tourist authorities, travel agents, universities, museums, and conservation organizations show considerable interest in using nature tourism to promote their own objectives, although sometimes with conflicting results. Finally, there has been considerable media attention to nature protection and nature-oriented travel in the form of television programs, newspaper travel pages, magazine articles, museum exhibits, etc. These contributions have a reinforcing effect, as improved attention and infrastructure generate more visitation, and more visitation leads to greater attention and infrastructure.

From the perspective of determining the place of the U.S. Agency for International Development's (USAID) development assistance in nature tourism, this paper has the following objectives:

- to define nature tourism and its links with other forms of "alternative tourism;"
- to broadly summarize the attractions and problems posed by nature tourism;
- to describe the parts played by key stakeholders in successful nature tourism;

- to review lessons from nature tourism in the developing countries of Asia-Pacific; and
- to focus on the potential for USAID and other development assistance agencies to enlarge the benefits to be captured from successful nature tourism.

NATURE TOURISM IN THE CONTEXT OF "ALTERNATIVE TOURISM"

The search for "appropriate tourism" is also a search for "alternative tourism." By this is meant a rejection of mass tourism and its real or imagined negative social, environmental, and cultural consequences. It is no longer assumed that mass tourism brings international understanding and economic prosperity for host countries. Sanguine assumptions of earlier decades about tourism's positive role in social and economic development have been replaced with measured skepticism. Hence numerous critical analyses now challenge the ability of tourism to bring about national development, cultural understanding, and environmental protection. Contrary to earlier forecasts and expectations, the current evidence on mass tourism is mixed, but mainly hostile (Richter 1987).

This has led to a growing concern with "alternative tourism" as being responsible tourism, people-to-people tourism, controlled tourism, small-scale tourism, cottage tourism, and green tourism. Here the intent and hope is that tourism will be sympathetic to host communities, cognizant of the needs of travellers and the quality of their experiences, and rewarding for the people who provide goods and services in the structure of tourism. Yet while "alternative tourism" enjoys a certain popularity as denoting a benign difference from mass tourism, the term lacks operational content. Like sustainable development, alternative tourism can mean almost anything to anybody. Hence much has been assumed to be positive about alternative tourism without critical evaluation:

Making simplistic and idealized comparisons of [...] mass and green tourism, such that one is obviously undesirable and the other close to perfection is not only inadequate, it is also grossly misleading [...]. Mass tourism need not be uncontrolled, unplanned, short-term, or unstable. Green tourism is not always and inevitably considerate, optimizing, controlled, planned, and under local control. [...] One conclusion which can be drawn is that, at least potentially, alternative forms of tourism penetrate further into the personal space of residents, involve them to a much greater degree, expose the genuine article to tourism to a greater

degree, may result in a proportionately greater leakage of expenditure, and may cause political change in terms of control over development (Butler 1990 p. 41).

This is simply to recognize that nature tourism is far from being everyone's solution to economic development and environmental protection, and that the virtues of nature tourism have to be weighed against its drawbacks in an objective manner.

What is Nature Tourism?

Among many variations of alternative tourism is travel to areas of outstanding natural beauty, special ecological interest, and pristine wilderness. This is nature tourism, also known as environmental tourism, ecotourism, scientific tourism, natural history travel, and adventure travel. The emergence of these many segments is relatively recent in the travel and tourism industry, and attempts to classify tourism based on natural attractions are still embryonic (OAS 1987).

"Nature tourism" is not easily defined. Used narrowly, the term refers to nature-oriented tours run by tour operators. Yet the term is often applied to describe tourism based on natural resources very broadly construed to include beaches and country landscapes. Moreover, a loose meaning of nature tourism sometimes encompasses archaeological and other culturally-based attractions.

For present purposes, nature tourism means tourism focused principally on natural resources such as relatively undisturbed parks and natural areas, wetlands, wildlife reserves, and other areas of protected flora, fauna, and habitats. Most nature tourism aims to satisfy human needs for recreation, education, science, and sometimes adventure. Nature tourism differs from mass tourism in that the latter concentrates mainly on shopping, amusement parks, restaurants, entertainment facilities, and other manmade or partially manmade attractions (e.g., beach hotels). One widely cited definition of nature tourism (ecotourism) is as follows (Boo 1990 p. 2):

Nature tourism consists in travelling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring, and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestations (both past and present) found in these areas. In these terms, nature-oriented tourism implies a scientific, aesthetic, or philosophical approach to travel, although the ecological tourist need not be a professional scientist, artist, or philosopher. The main point

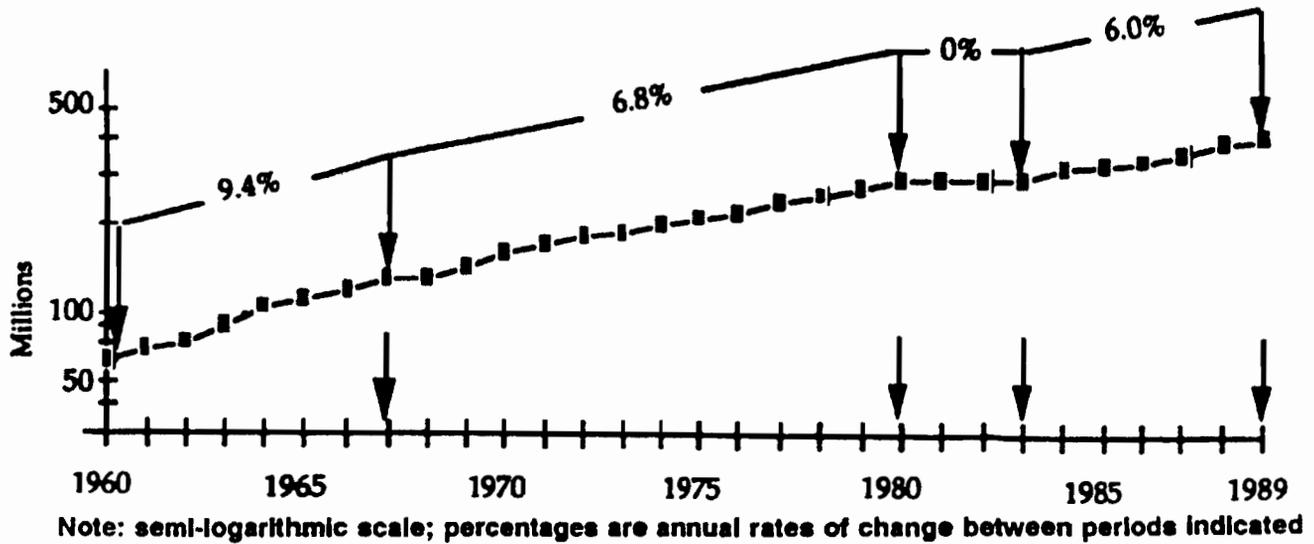


Figure 1: Growth in world international tourist arrivals

is that the person who practices ecotourism has the opportunity of immersing himself/herself in nature in a manner generally not available in the urban environment.

Categories of Nature Tourism

Nature tourism has hard and soft dimensions, depending on the scientific and physical rigors of the experience. Dedicated natural history travel by herpetologists, ornithologists, and other professionals classifies as hard nature tourism, sometimes called scientific tourism. In comparison, soft nature tourism might combine general interests (e.g., shopping, nightlife, and culinary pursuits) with nature-oriented visits to rainforests, volcanoes, reefs, caves, and so on.

The hard-soft distinction also applies to the physical rigor of the travel experience. Will the visitor have to walk miles into undeveloped backlands, sleep in a crude shelter, and tolerate primitive sanitary conditions? Or will the visitor stay in quality accommodations, eat in good restaurants, and be conveyed in comfortable transport? Some hard tourism, from the standpoint of dedication to natural history, falls into the soft category of physical rigor. The inverse also occurs when casual devotees seek or unwillingly experience rigorous travels (Laarman and Durst 1987).

Another classification recognizes four basic categories of nature tourism (Lindberg 1991 p. 3):

- Hard-Core Nature Tourists--This group includes scientific researchers and tour groups specifically

designed for science, education, litter removal, and similar purposes.

- Dedicated Nature Tourists--These are persons who take trips specifically to see natural areas, and who want to understand local natural and cultural history.
- Mainstream Nature Tourists--This category refers to individuals visiting jungles, rivers, and other wildlands destinations primarily to take an unusual trip.
- Casual Nature Tourists--These individuals experience nature incidentally in the context of a broader travel itinerary.

Each of these varieties of nature tourism is found in the developing countries of Asia-Pacific. Furthermore, different varieties are often available in a given geographical region, depending on accommodations, destination attractions, tour operators, and other determinants of tourism composition.

Needs of Nature Tourists by Type of Traveller

According to a classification by Kusler (1990), nature tourists fall into three groups in terms of travel needs and impacts: independent travellers, tour groups, and school and scientific groups. Each category has different requirements for tourism goods and services, and each makes different economic, social, and environmental impacts in destination regions.

It is believed that independent travellers constitute the greatest number of nature tourists. This includes international nature tourists who travel to developing countries to view exotic nature-oriented sites. Independent travellers represent all age groups, socioeconomic classes, and purposes of visit. They depend upon relatively available public transportation, vehicle rentals, tourist information, and methods of communication in other than their native languages. Independent travellers also include many "adventurous" individuals who can be comfortable in unusual surroundings. Because they travel on their own, independent travellers often are the least well described in tourism statistics, which means that their needs and views may be poorly understood by policymakers and other officials.

Formal tour groups are important in nature tourism, especially in remote areas reached only with great difficulty by independent travellers. Most international nature tours are expensive. For example, a study of international travel by U.S. conservation groups found that daily costs rarely fall below \$100 and sometimes reach \$500 (Laarman et al. 1989). In general, these tour groups demand relatively high standards of comfort and care. The contribution of tour groups to local economies may or may not be high, depending upon their use of local versus imported food, guides, equipment, and other inputs. Since tour operators often personally know the tourism authorities and other government officials, their wishes in matters of planning and policy may carry considerable weight.

School and scientific groups resemble other tour groups in many respects, but often have additional needs in terms of educational or interpretive support. For example, guides and written information may have to be highly specialized. Compared with other tourists, individuals in school and scientific groups may be more knowledgeable about natural history and environmental issues. Additionally, school and science groups sometimes play a role in advancing local research, environmental management, and environmental education. Visitations of students and scientists may be longer than those of other visitors, and possibly more tolerant of inconveniences and discomforts.

BENEFITS AND CONSTRAINTS OF NATURE TOURISM

In its theoretical ideal, nature tourism serves several national objectives (Healy 1988). It provides an economic incentive to protect natural resources such as forests, wildlife, and waterways. It offers incomes and the potential for economic advancement to residents of impoverished rural communities. It attracts a segment of visitors less likely to trash the countryside and

offend local people than visitors in mass tourism. It educates international visitors and local residents alike about the importance and value of a country's natural heritage, and may generate international support for local conservation projects. These are idealized attributes not always achieved in practice, given that nature tourism presents simultaneous risks and costs. Net benefits from nature tourism do not occur by accident, but rather demand extensive analysis, planning, and management.

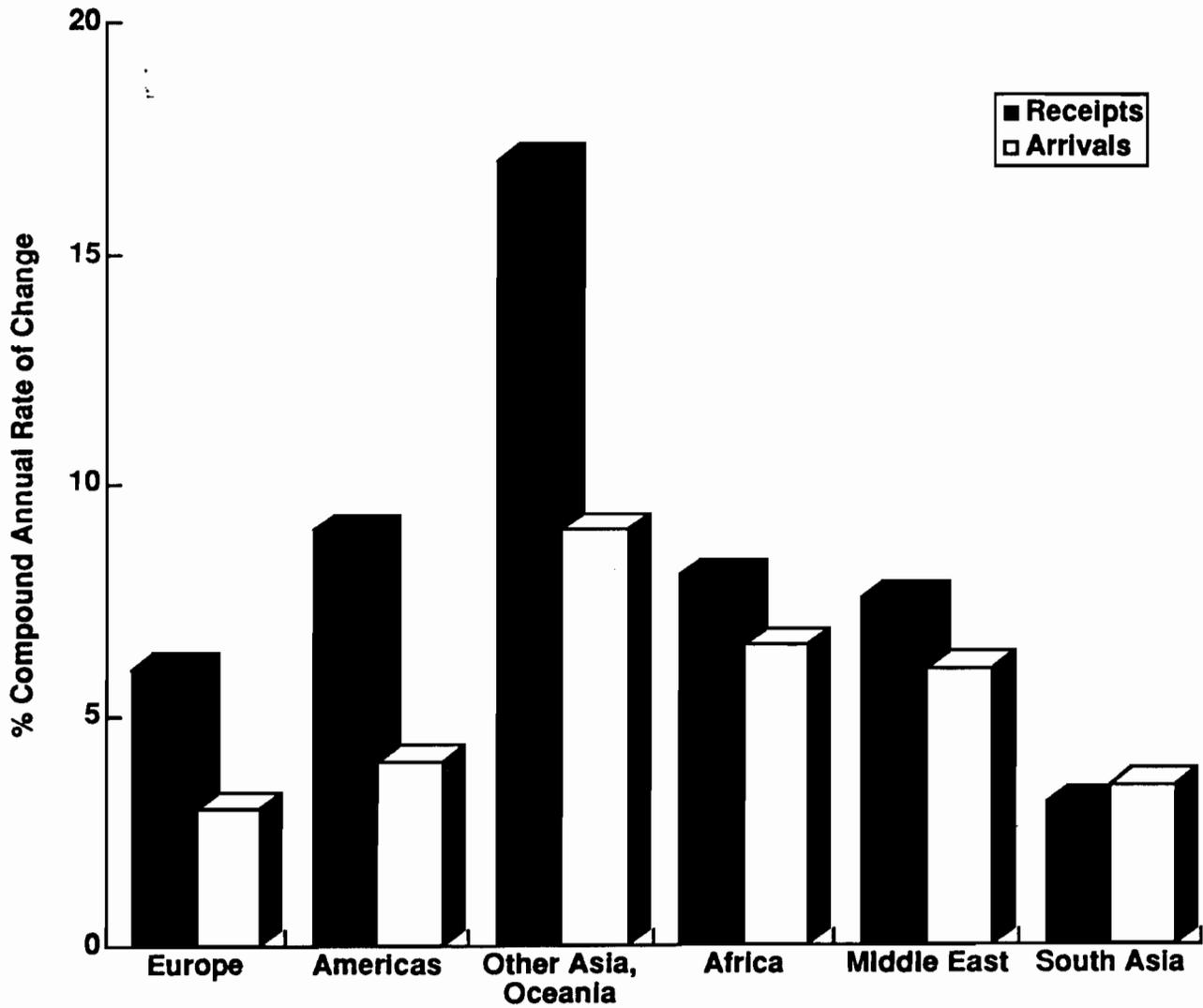
Benefits

Our Common Future, the report of the World Commission on Environment and Development (the "Brundtland Commission"), is above all an argument that economic development and environmental protection are two sides of the same coin. Many forms of development erode or badly use the environmental resources upon which they depend, just as environmental degradation undermines economic growth. It is, therefore, futile to deal with either environmental management or economic development without addressing the other (World Commission on Environment and Development 1987 p. 3).

Within this broad conceptual framework, nature tourism is one strategy which potentially integrates development and environment (Whelan 1991). Nature tourism is a non-consumptive use of wildlands, generating employment and income from resource conservation and the protection of biological diversity. Many writers and conservation organizations take the position that nature tourism, when properly implemented, has considerable potential to lift regional economies (e.g., McNeely 1988; Hodgson and Dixon 1988; Boo 1990). The support for nature tourism among many environmental agencies and conservation organizations is based on the following assumptions (Kusler 1990):

- it offers economic incentives to governments, private individuals, and businesses to plan, assess, and protect natural and cultural resources;
- it educates nature travellers as well as individuals at many levels of society about the values of natural and cultural resources, and builds constituencies for protection of these resources;
- it develops appreciation and pride in natural and cultural resources by landowners and units of local government; and
- in some instances, it offers both domestic and international educational and scientific research opportunities.

Annual Rate of Change in Tourism Receipts and Arrivals (1980-1989)



Source: World Tourism Organization

Contribution to National Income

Nature tourism is a small component of the world's huge travel and tourism industry, but generates significant incomes for many developing countries. The general arguments for tourism in national income growth are that it (1) increases earnings of foreign exchange, improving the balance of payments; (2) expands a country's service sectors, generating employment over a wide range of skill levels and industries; and (3) attracts investment capital for infrastructure serving development needs wider than tourism alone (Boo 1990).

In principle, tourism offers several advantages for economic expansion. First, the outlook for continued world growth in travel and tourism is generally optimistic, and, thus, tourism appears as an attractive growth pole. Moreover, tourism represents economic diversification for numerous developing regions presently highly dependent upon agriculture and various forms of commodity production. In the case of nature tourism, it is believed that economic activity can be stimulated in non-industrial and often geographically remote areas, presenting one of the few commercial possibilities for such areas (Pearce 1981; Boo 1990).

Statistics on the economic magnitude of nature tourism are sparse and not always reliable, but a few selected cases suggest that impacts can be significant. For example, Kenya's game parks and other protected areas generate nearly \$500 million in direct and indirect revenues, or about 30 percent of Kenya's foreign exchange. Ecuador's Galapagos Islands attract many thousand international visitors each year, capturing nearly \$0.6 million from entrance fees alone. In the Caribbean region, expenditures by scuba divers represent nearly \$1 billion annually (Lindberg 1991).

Nature tourism has grown rapidly in Costa Rica, where tourism is the third largest earner of foreign exchange behind coffee and bananas. Much of Costa Rica's nature tourism is oriented to the country's national parks and other natural areas. In the late 1980s, a single national park, Corcovado, produced over \$1 million annually in visitor expenditures (OAS 1987). Additionally, Costa Rica attracts a significant flow of university students and professors for studies in tropical science, contributing both directly and especially indirectly to the country's tourist income (Laarman and Perdue 1989).

Rwanda presents a case of dramatic economic impacts from its "gorilla tourism." Tourism increased tenfold in just one decade, mainly because of visitors who came to see mountain gorillas in the Parc National des Volcans. By the late 1980s, visitor demand was so

strong that officials doubled the fees to visit the gorillas to \$145 per person (Durst 1988). Rwanda's gorilla tourism annually brings in \$1 million in revenue from entrance fees, and up to \$9 million in tourist expenditures (Lindberg 1991).

Nepal has become a primary destination for trekking, wildlife viewing, and more recently, river rafting. By the late 1980s, the number of tourists engaged in these activities was an estimated 80 thousand. Nepal's Department of Tourism concluded that trekkers alone spent \$24 million in Nepal during the year 1988, although this figure is known to underestimate the true total. Thus, trekkers accounted for over 27 percent of Nepal's total tourist expenditures. While average expenditure per day by trekkers is less than for other categories of tourists, trekkers average 25.8 nights in the country, or far more than any other kind of international visitor (Parker n.d.).

Nature Tourism as a Growth Sector

Scattered data and anecdotes suggest that the volume of nature tourism has been growing significantly, although with marked variations across countries and activities. For Nepal in the late 1980s, the number of mid-altitude trekkers grew by 11 percent per year. Wildlife tourism (e.g., in Royal Chitwan and Bardia National Parks) and river rafting expanded rapidly. This compared with static participation in professional hunting, and very slow growth in high-altitude mountaineering (Parker n.d.).

A recent survey of travel companies in the Bay Area of California found that the volume of nature-oriented travellers to Asia has been growing modestly to very rapidly. Among this sample of enterprises, travel volumes to Asia-Pacific range from a few dozen to about one thousand per year. Respondents mentioned that the economic recession in the U.S. is not a determining factor for upscale travellers, the kind who participate in many of these trips. Some of the larger companies reported that volume is growing 10-20 percent annually, and this is without any real marketing other than the printing and distribution of their travel catalogues (Laarman 1991).

As noted previously, the reasons for growth in this travel niche are that many formerly mainstream tourists want something "different" to the usual travel itinerary. Increasing numbers of travellers feel that they want to visit the Third World, and increasing numbers want an active, health-minded, and educational experience. Asia continues to be a major destination for North American travellers, and the travel companies see the Asia market as far from saturated. Classic destinations such as the Himalayan region

continue to be popular, and there is little evidence that visitor numbers are leveling off (Laarman 1991).

Dispersion of Benefits

At least in theory, nature tourism distributes employment and income to people in remote rural areas. Moreover, daily expenditures by nature tourists are high in relation to typical income levels prevailing in these regions. Hence the theoretical potential for these areas to gain economically from nature tourism is substantial. The realization of this potential is largely governed by the structure of the country's tourism industry, particularly by participation characteristics and labor intensity of hotels and eating establishments, transport facilities, tour enterprises, and the like.

In a small town near the Monteverde Cloud Forest Reserve in Costa Rica, eight women started a souvenir and crafts shop in the early 1980s as a cooperative enterprise. By the late 1980s, annual sales by this cooperative reached \$50,000. In Nepal, the Tiger Mountain Group employs several hundreds of persons during seasons of peak visitation in an otherwise remote area (Lindberg 1991).

In Thailand, nature tourism is widely dispersed throughout the country. More than 50 national parks and 30 wildlife refuges cover over 10 percent of the country's land area. Khao Yai and Erawan are among the best known parks, and both are easily accessible from Bangkok. Near Chang Mai, Doi Inthanon and Doi Suthep are popular sites for bird watching and hiking. Among Thailand's excellent marine parks and beaches, Pattaya, Phuket, and Ko Samui are favorite destinations. Trekking is concentrated in the northern provinces, where visitors are attracted to the region's waterfalls, rivers, and forests. At Kanchanaburi, main attractions are waterfalls, caves, and forest flora. An increasing number of private nature resorts are being established, particularly in the northern and western areas of the country (Durst 1988).

Community Development

Under the right policy and institutional circumstances, communities adjacent to destinations for nature tourism reap cash incomes and other benefits from the inflow of visitors. Although many analyses point to conflict, it is important to consider the successful cases of accommodation and harmonization between local communities and nature tourism.

In ideal situations, nature tourism is a source of funding and development programs for communities near national parks, wildlife reserves, and other destinations important in nature tourism. Residents who

relied upon these areas for food, fuelwood, grazing, and other uses suffer reduced welfare when these areas are set aside under protected status. It is then the role of governments, community organizations, and individual residents to find economic alternatives to substitute for the displaced subsistence use of the land.

One option is to allow continued use of the land so long as this use is controlled and does not interfere with the protected status of the area. Near Nepal's Royal Chitwan National Park, residents are allowed to harvest thatch grass during a certain season of the year. This grass is a traditional material for making roofs, and has an estimated value of \$1 million annually for the local villagers who harvest it (McNeely 1988).

In East Africa, governments in both Kenya and Zambia attempt to direct benefits from nature tourism to local residents. Thus, Kenya's Wildlife Service hopes to channel some 20-25 percent of revenues from wildlife tourism to adjacent villages. Also in Kenya, Masai tribal groups receive \$30,000 yearly--plus substantial indirect benefits--as recompense for losses caused by increases in wildlife populations at Amboseli National Park. In Zambia, a Wildlife Conservation Revolving Fund was established to grant local chiefs 40 percent of the revenue earned from the sale of hunting licenses. This revenue can be used for community projects, and has encouraged tribal leaders to become active in anti-poaching strategies (Lindberg 1991).

Other examples of nature tourism indicate that local residents earn income from sales of the varying guide services, crafts, food, and other goods and services. Illustrations from Latin America include the Community Baboon Sanctuary in Belize, the Kuna Comarca in Panama, the Manu Biosphere Reserve in Peru, and the Cuyabeno Wildlife Reserve in Ecuador (Gradwohl and Greenberg 1988).

In Thailand, some residents of the village of Ban Sap Tai next to Khao Yai National Park are employed as guides and porters for nature treks. Moreover, an environmental protection society was set up to provide villagers with low-interest loans, educational benefits, a cooperative store, and other economic support. While the volume of employment in trekking at Khao Yai is not great, the monetary income plus the community development program have helped Ban Sap Tai compensate for loss of land now inside the national park (Lindberg 1991).

Contribution to Environmental Conservation

Nature tourism contributes to sustainable development to the extent that revenues can be generated to protect and manage the resource base which draws the

visitors. Many governments around the world levy entrance fees, concession taxes, and related charges in their administration of national parks and other protected areas. In numerous examples, these revenues are well below actual willingness-to-pay on the part of the visitors. Also, the revenues collected often flow directly to the central treasury, with only inadequate amounts returned for management of the protected areas. Yet there are important exceptions in which entrance fees, taxes, and other revenues from nature tourism are vital sources of funding for environmental conservation programs.

Among the world's best examples of this are African wildlife parks. In Kenya, the World Bank financed investments in tourism expansion in Amboseli National Park--not for conservation purposes, but rather because of attractive financial returns. In view of the demand for wildlife tourism, each lion in Amboseli generated tourism expenditures of \$27,000 per year. Likewise, each elephant herd was valued at \$610,000 annually. Estimated returns from park tourism were \$40 per hectare, compared with just \$0.80 for agricultural uses of the same land (Western and Henry 1979). These data suggest why Kenya has generated policy support for nature tourism, even though land-use conflicts are far from resolved. Without tangible benefits from nature tourism, the case for wildlands protection would be much more difficult to make.

Gorilla tourism in Rwanda has been able to generate revenue for anti-poaching patrols and other protection strategies. Of the \$1 million per year in entrance fees at Parc National des Volcans, Rwanda spends only \$150,000 on its hiring of 70 park guards and 8-10 guides. This level of personnel is sufficient to help reduce poaching. Similarly, the poaching of elephants and rhinos in Zambia has decreased markedly as the result of increased park personnel funded through auction of safari hunting rights and the harvest of hippos (Lindberg 1991).

In the Caribbean region, Saba Marine Park is expected soon to become financially self-sufficient due to entrance fees and royalties channeled into park management. This is despite modest fees, i.e., \$1 per snorkeler and \$1 per dive for scuba divers (Lindberg 1991).

The Galapagos National Park of Ecuador generates considerable revenue from its fee of \$40 per international visitor, plus a lower fee for Ecuadorian nationals. A part of the revenue collected at Galapagos is redistributed for management of Ecuador's other national parks and reserves, which bring in considerably less revenue (Wilson and Laarman 1987).

In Thailand, the National Parks Division is able to

retain revenues generated by entrance and lodging fees, park concessions, and fines. Although these fees are modest, they are sufficient to roughly offset management costs at heavily visited areas like Khao Yai National Park (Lindberg 1991).

Environmental Awareness and Activism

Nature tourism can be instrumental in turning increased attention to environmental issues. The experience of nature travel has the potential to foster awareness, education, and potential follow-up. The argument is that a personal visit to a natural area makes the traveller a better world citizen, voter, and philanthropist. The traveller takes not only photos, but also attitudes and information.

Many nature travellers return home with the determination to work for organizations and support groups active in nature conservation. These groups strengthen commitments to nature protection, and their presence often helps foster environmental education, training, and supplemental financing (Gradwohl and Greenberg 1988). Frequently, the most active members of these support organizations are motivated by personal visits to the nature sites they befriend. In this respect, several conservation organizations (e.g., The Nature Conservancy, World Wildlife Fund, Conservation International, etc.) organize periodic nature tours in order to stimulate political and philanthropic interests in their projects, including projects in developing countries.

Among organized tour groups, several travel companies send a post-trip questionnaire to their travellers. This mailing includes information on how the traveller and his/her friends can contribute to foundations and development projects in destination countries. Other travel enterprises contribute directly to these foundations and projects. For example, one Texas-based firm which specializes in international birding tours has donated significant sums for the protection of certain forest reserves important as bird habitat. Still another variation is for the travel company to become a member and pay membership dues to various conservation organizations in the destination countries.

Additionally, some travel companies specializing in nature tourism regularly schedule visits with local conservation organizations so that tour participants learn of their objectives and activities. A special form of this is when a local environmental group leads the trip or a part of the trip at the destination. This helps solidify the purpose of the environmental group, and perhaps advances its growth and identity. One U.S.-based travel company with numerous trips to Asia gives every tour participant a year's membership in a conservation organization in the destination country,

with the anticipation that some will remain as dues-paying members in future years (Laarman 1991).

Favorable Characteristics of Nature Tourists

Proponents of nature tourism claim that it is a subjectively wholesome kind of activity compared with certain other tourism segments, e.g., sex tourism in Thailand and the Philippines. Another perception is that dedicated nature travellers are able to tolerate primitive facilities and poor infrastructure so long as other aspects of the travel are satisfactory. This implies that poor regions with limited capital may be able to pursue nature tourism with relatively modest investments and few imports. Yet another impression is that nature tourists tend to be better educated and less likely to offend local residents than various other types of international tourists. Admittedly, these are generalizations which remain untested by systematic and empirical investigation. However, if true, such characteristics do much to favor nature tourism in countries possessing the resource base to attract such visitation (Goudberg et al. n.d.).

Constraints

Although nature tourism affords numerous favorable characteristics for economic development and environmental conservation, as described in the preceding sections, it also suffers a number of drawbacks. The delicate balance to be pursued is maintenance of local control and economic benefits without impairing the resource base. Several other trade-offs and opportunity costs can be identified.

Risks of Environmental Degradation

Efforts to link tourism and environmental management began in the early 1970s in a joint agreement between the World Tourism Organization (WTO) and the United Nations Environmental Program (UNEP). This accord directs national governments and development agencies to "give environmental factors a high priority in tourism planning" (Romeril 1989; Goudberg et al. 1990).

Yet a major issue is that the growth of tourism often leads to the demise of the resource base which first attracted it. That tourism can destroy tourism is applicable especially in the absence of careful planning and disciplined control. Simply stated, the fragile ecosystem is "loved to death." This is a particular risk for tropical rainforests, high-elevation trekking routes, and other environmentally sensitive zones. Thus, in the polarization between the tourism industry and environmentalists, the former are perceived as exploitive opportunists, while the latter are seen as

obstructionists. Progress towards sustainable nature tourism is difficult so long as these rigid divisions remain (Goudberg et al. 1990).

Many years ago, Budowski (1976) described three possible relationships between tourism development and the natural environment. The first relationship is direct conflict, where the existence of tourism adversely affects nature conservation. In the second relationship, coexistence, there is little interaction between tourism and nature conservation. Yet coexistence may be a fleeting phase, given that tourism growth frequently pushes the coexistence stage towards either conflict or the third relationship, symbiosis. In symbiosis, both tourism and nature protection derive benefits from each other.

In many cases of tourism development, initial coexistence rapidly gives way to conflict when environmental planning and management are poor. Conflict leads to disappearance of wildlife, degradation of vegetation, and various economic and social costs to local communities. Indeed, many objections to tourism in general, and nature tourism in particular, center on threats and potential threats to the resource base (Kusler 1990):

- visitors to ecologically fragile areas may ruin such areas by trampling the vegetation, frightening the wildlife, collecting plants and animals, polluting the water, and so on;
- governments and developers catering to nature tourism may damage or destroy natural attractions through the construction of roads, lodges, shops, campsites, and other infrastructure too near sensitive areas; and
- local landusers may damage or destroy natural areas through burning, hunting, grazing, and other activities, particularly when they believe that use of these lands is unfairly restricted through regulations which bring them few of tourism's benefits.

Through the years, various reports on trekking in the Himalayas have noted evidence of destructive impacts. In Nepal, tree cutting for firewood and construction materials has become a major problem in Annapurna and Sagarmatha. Entire areas have been denuded, toilet facilities along trails are lacking, disposal of trash presents a perpetual challenge, and game animals are under hunting pressure to supply meat for lodges (Jeffries 1982; Stevens 1988). While tour operators claim to be environmentally responsible by burning kerosene rather than firewood, this is easily skirted in practice. Kerosene may be used by the nature tourists, even as porters and other support crew burn firewood to keep warm at night (Parker n.d.).

Limited Carrying Capacity

The carrying capacity of a particular site for nature tourism has both ecological and social dimensions. Unfortunately, little is known about carrying capacities in nature tourism apart from a largely theoretical framework. Needed are reliable statistics on visitor numbers, perceptions, and measured impacts on flora and fauna.

In general, it may be assumed that carrying capacities in nature tourism are quite limited. Ecologically, disturbance thresholds are reached quickly in areas where visitation depends on the presence of wild birds and animals, and where visitors may be able to wander away from roads and trails. Additionally, the dedicated nature tourist may perceive social crowding as a serious disturbance, for it is precisely the escape from civilization which is cherished. Examples of strained carrying capacity could be given for national parks in Costa Rica, the Galapagos Islands, African game parks, Himalayan trekking, and several other destinations important in nature tourism.

Economic Leakages

While the argument is made that nature tourists may be relatively tolerant of poor infrastructure, it is also clear that basic sanitation and safe water supply are essential where nature tourists visit. Moreover, nature tourism is like any other form of tourism in requiring investment and maintenance of airports, ground transportation, and communications. These can represent significant expenditures, especially where governments are struggling with austerity budgets.

An important issue connected with these investments is "economic leakages," or the outflow of tourism revenues from the local economy. "Leaks" occur where the tourism infrastructure is not locally owned, where countries spend abroad for tourism promotion, and where countries import fuel, consumer products, management expertise, and other tourism goods and services. A widely quoted estimate by the World Bank suggests that 55 percent of gross tourism revenues in developing countries leaks to foreign destinations (Frueh 1988). This proportion can reach 80-90 percent in extreme cases of small and undiversified economies, where very little of tourism investment is in local hands or uses local resources (Mathieson and Wall 1982).

Low Earnings Capacity

Nature tourism is a small component of all tourism, and this is frequently cited as an advantage in terms of controlling adverse tourism effects. However, the argument can be turned around to imply that nature

tourism has low earnings potential because of its small size and limited infrastructure. That nature tourism is often small and not highly visible may mean that governments take little serious interest in it as a development priority (Goudberg et al. n.d.).

Also, while conventional sun-and-sand tourists are sedentary and spend their money in a limited number of resorts and hotels, much spending by nature tourists may be for tour packages which have high economic leakages (see preceding subsection). Also, wilderness tourists may spend little or nothing in the wilderness, since frequently there is nothing to buy. This undercuts the largely theoretical assertion that green tourism generates money in the countryside (Butler 1990).

A study of nature tourism in Benin found that for every national park which functions as a profitable tourist attraction, there are many others which do not. This is because they are too remote, not protected and managed, or have little opportunity for visitors to spend money in local economies. It was concluded that revenues were too inadequate, and impacts on local economies too small, to justify management and protection for nature tourism (Sayer 1981).

Limited Infrastructure and Facilities

While some forms of nature tourism can get along with only limited infrastructure, this is not always possible, and even less often desirable. Many outstanding natural areas lack roads and trails, visitor centers, interpretive materials, maps and signs, eating establishments, souvenir shops, and places for camping and picnics. Tour operators chronically complain that these sites need more personnel (especially guides), better access, and more vendors of food, lodging, handicrafts, and so on. Absence of these facilities is particularly problematic for "soft" nature tourism, which is often the principal component of the market (Durst 1988).

Instability and Risks

Nature tourism shares with conventional tourism various risks and sources of instability. Negative external factors include political strife, terrorist activities, airline strikes, bad weather, natural hazards, and disease outbreaks. Many of these factors are beyond the capacity of government officials and tourism enterprises to control. Yet tourism volumes and patterns are highly sensitive to them. For many potential tourists, the Philippines has too many insurgents. Similarly, abrupt political events in India, Nepal, China, and Thailand can discourage visitation there. While images of trouble may not be justified, potential travellers act on perceptions rather than objective reality.

Because tourism is an "invisible export" and a form of international trade, tourism responds to movements in currency exchange rates. The relative strengths of the U.S. dollar, Canadian dollar, Australian dollar, Japanese yen, German deutschmark, etc., affect the composition of tourists and their choices of destinations. If the U.S. dollar is weak against the Australian dollar, but strong against currencies of Southeast Asia, then tour operators and individual travellers may shift trips away from Australia and towards Indonesia, Thailand, and Malaysia. Conversely, currency movements in the opposite direction will shift travellers towards Australia. These fluctuations complicate marketing strategies, affect utilization rates at tourist facilities, and in other ways contribute to unpredictability.

Incidents in which international tourists are molested, robbed, or killed are rare, but nevertheless highly consequential in the decisions of tour operators and individual travellers. Occasionally, foreign travellers are detained for questioning at military checkpoints, which also generates negative experiences remembered by tour operators and others in the tourism industry (Durst 1988).

Tourism is usually seasonal and sometimes highly seasonal. This creates special constraints in filling hotel rooms, amortizing fixed investments, and hiring and dismissing labor. It also poses problems for stabilizing the annual incomes of enterprises in the tourism sector, including enterprises in nature tourism. The differences in visitor arrivals between "high" and "low" seasons can be profound, with volumes varying by factors of 10 or more in some cases of nature tourism at national parks and other destination attractions.

Compared with beach tourism and other segments of conventional tourism, nature tourism may attract numerous one-time visitors who do not return after they have experienced a particular site once. Moreover, a country may invest in nature tourism only to discover that its sites are not sufficiently special, its transportation costs too high, its facilities unattractive, and its publicity insufficient to make a success of nature tourism as a business venture. Finally, natural hazards like floods and hurricanes are a particular threat for facilities in nature tourism, many of which are located along rivers, on mountains, and in remote backlands reached only via precarious access routes (Kusler 1990).

Questions on Social Impacts

In nature tourism as one among several varieties of alternative tourism, social impacts should be thoroughly explored to objectively examine interactions between hosts and guests. While nature tourists may be well educated and "desirable" visitors from several

points of view, they have profound consequences on local communities, not all of which are favorable. For example, in the many instances where visitation to national parks and other protected areas leaves only a little money in the local setting, residents may harbor both anti-tourist and anti-park feelings.

Also, tourism which places international visitors in mountain tea houses and remote villages may change local cultures far more than sun-and-sand tourism concentrated in casinos and beach resorts. The latter is understood to be an artificial environment by both visitors and hosts, while the former generates profound and perhaps permanent changes where cultures are still genuine and highly vulnerable to outside influences (Butler 1990).

STAKEHOLDERS IN SUCCESSFUL NATURE TOURISM

Success in nature tourism requires coordination of policies and actions among various "stakeholders." This refers to people management in all of its complexities (Kusler 1990). The actors include nature travellers, local landowners and land users, several functional categories of government agencies, private tour operators, private investors and concessionaires, and different categories of non-governmental organizations (NGOs). Rarely if ever do these groups share common aims, information, values, goals, and political power. Rather, the almost inevitable conflicts imply interventions to offset differences, develop compromises, and compensate losers.

Nature Tourists

The volume, mix, and characteristics of nature tourists determine whether nature tourism can be successful. These individuals have desires and expectations to be met. Their desires and expectations may or may not be "reasonable" in any particular case. Additionally, it is the nature tourists who make decisions on where and when to travel, and where and how to spend their money. These decisions could be "right" or "wrong" from the perspective of a particular country, national park, tour operator, or hotel. Moreover, nature tourists may be careful or careless regarding environmental disturbances at destination attractions.

In view of the centrality of the nature tourist, development strategies in nature tourism must pay considerable attention to the profile of desired visitors. Variables such as whether nature tourists are independent travellers or tour groups, and whether they are budget-minded students or big spenders, are to a considerable extent within the power of host governments to influence. However, this begins with a clear and articulated

vision of who is to be attracted, and for what reasons. Furthermore, this vision must be widely shared. Goal setting relative to volumes and categories of nature tourists logically takes place in dialogues among tourism authorities, agencies responsible for protected areas, conservation NGOs, and the private sector (i.e., tour operators, investors, concessionaires, owners of hotels and restaurants, etc.).

Local Landowners and Users

The viability of nature tourism depends on the needs and attitudes of those who own the destination sites, as well as lands adjacent to such sites. Not all attractions in nature tourism are owned by governments. Where they are owned privately, owners and occupiers (if they are different from each other) will have to choose nature tourism over competing land uses.

Governments and sometimes private investors may be able to influence land-use decisions in favor of nature tourism through the provision of information on comparative net benefits among competing alternatives. They may also use the provision of positive incentives (particularly monetary incentives), or through establishment of legal and administrative regulations. The latter course is the most risky because it generates resentment and possible backlash. Yet the provision of information, incentives, or both entails fiscal costs which governments and private investors may claim as unaffordable. Hence the policies and mechanisms to win landowners and land users to nature tourism must be adapted to individual historical, cultural, legal, and fiscal circumstances.

Government Agencies

Responsibility for the well-being of nature tourism seldom falls within the domain of a single government agency. The multisectoral character of nature tourism requires a multi-agency approach in policy and management. Administrative structures reveal key decision roles for the tourism authorities, the agencies responsible for national parks and other protected areas, the agencies responsible for transport and other infrastructure, and the agencies in charge of development planning and finance.

Tourism Authorities

Especially in developing countries dominated by agriculture and commodity production, ministries and institutes of tourism are often small and underfunded. Except for certain Caribbean countries and a few others, it is common to observe that tourism does not have the political clout of other sectors. Consequently, tourism budgets and personnel do not compare favor-

ably with those in other governmental agencies. Where a country's economy and political attention are focused on masses of poor people, tourism may be considered a "luxury" of limited or negative attractiveness for any given political administration.

Where such adverse perceptions are overcome, it is usually through convincing economic arguments. Political leaders at high levels need to take a stand on the national benefits to be derived from tourism, and this relies on analysis and projections of employment and foreign exchange. Without favor at top political levels, tourism authorities cannot compete well in the hard-fought battles over resource allocation.

Moreover, political and civil service administrators within tourism ministries and institutes must appreciate and cultivate nature tourism and other "alternative tourism" as distinct from conventional tourism. This depends on the existence of comparative advantage in nature tourism versus other tourism, and ample diffusion of this preference (if based on fact) within tourism circles. Investors and other stakeholders in sun-and-fun tourism will resist any emphasis not corresponding with their own interests. Hence, the political contest for favor and budgets is not just between tourism and other sectors, but also within tourism ministries and institutes in terms of pressures from competing tourism lines.

Agencies Responsible for Protected Areas

Government authorities for national parks and other protected areas often manifest strong philosophies advocating "resource protection" at all costs. This has been a prevailing doctrine in many countries, irrespective of economic level and political system. The dominance of the conservation ethic often means that these agencies are not well prepared to handle complicated and politically sensitive questions on tourism.

Attitudes about nature tourism may be ambivalent or even hostile among the more traditional parks managers. This situation is not helped when entrance fees and other revenues from visitors are transferred to central treasuries rather than being retained for area management. The agencies may perceive they are saddled with all the problems of managing nature tourism, even while capturing few of the rewards. This viewpoint is reinforced in the typical case of small budgets and few personnel relative to management needs.

Despite their frequent ambivalence about tourism and often meager resources, the agencies which manage protected areas increasingly find themselves defining policies and writing management plans for nature tourism and other kinds of visitation. Success in this

endeavor requires that agency managers realize certain benefits (career advancement, psychic benefits, travel, etc.) by embracing a positive stance on visitation. This positive view is nurtured by diffusion of the relatively new "sustainable development" thesis that nature conservation and economic development can be complementary. Moreover, tourism authorities and development agencies may be able to influence the attitudes of agencies responsible for protected areas in a way favorable to nature tourism. In this respect, policies to allow entrance fees to be retained for area management are one of the likely avenues to encourage a more positive outlook on nature tourism.

Agencies Responsible for Infrastructure

Still another set of government agencies playing a large role in nature tourism are those which build and maintain roads, airports, electricity grids, water and sewer systems, and other infrastructure. Many of these authorities are politically powerful, and their programs have major consequences for the locations and forms of tourism, including nature tourism.

In most places, nature tourism is not sufficiently important as an income earner to have much impact on the determination of infrastructure priorities. However, this does not stop the tourism institutes, tour operators, and other stakeholders from making known their needs and preferences.

Agencies Responsible for Development Planning and Finance

Ministries and agencies of economic planning, budget authority, and the like often have enormous influence on the funding and program direction of the rest of a government's agencies. Planning and fiscal authorities are interested in protected areas and nature tourism mainly in the context of national economic development. Also, these planning and fiscal bodies establish budget allocations for the agencies described previously--the tourism authorities, the agencies responsible for protected areas, and the agencies which build and maintain infrastructure.

Usually, nature tourism is too small to be considered separately in discussions of national priorities. However, tourism in general may be debated at this level. Depending upon a country's governmental system, this may make it possible for tour operators, transportation companies, hotels, and other stakeholders across all tourism segments to express their concerns within the national political framework. Success in nature tourism might require that spokespersons for nature tourism be at least as powerful as the other special interests competing for attention and funding.

Tour Operators

The numbers and characteristics of tour operators, both national and international, have an almost self-evident consequence for nature tourism. Even in settings of many independent travellers, it is often the tour operators who determine which sites will be popular or unpopular for nature tourism. Moreover, tour operators have considerable influence over which hotels, transportation companies, restaurants, and guides will be successful or unsuccessful.

Tour operators rank high among the private interests which attempt to influence policy and programs for the national parks and other protected areas. Likewise, they attempt to influence the policies and priorities of tourism ministries and institutes; the various agencies responsible for physical infrastructure; and sometimes the decisionmakers responsible for national development planning and budget allocation.

As noted earlier, some tour operators play a lead role in supporting conservation organizations, conservation legislation, and conservation education. Thus, some tour operators claim they bend over backwards to ensure that all conservation fees are paid, even where collection of such fees is lax. In the case of trekking in Nepal, this may require the payment of national park fees, camping fees, and lodge taxes--plus time and effort with the government bureaucracies to obtain the necessary permits.

Other tour operators are currently less inclined to be active in conservation efforts, and may even be perceived as among its principal enemies. Success in nature tourism hinges on winning this second element to good deeds through business motives, peer pressures from other tour operators, dialogues with conservation NGOs, and other influences.

Investors and Concessionaires

The long-run viability of nature tourism is determined by the investments it attracts in hotels and lodges, transportation services, artisan shops, eating establishments, and other support enterprises. The economic, social, and political attractiveness of nature tourism is shaped to a large degree by the numbers, scales, and ownership characteristics of these enterprises. These can be small or large, private or public (or parastatal), and tasteful or tacky.

Careless development quickly ruins the attraction base in nature tourism, just as intelligent development helps extend carrying capacity and broaden economic impact. The different pathways observed in experience are explained by variations in licensing requirements

and enforcement; building codes and enforcement; comparative incentives and taxes on different types of enterprises; positions on tourism development taken by conservation groups; and facility needs and preferences of tour operators. Other factors are availability and cost of loans, and--most importantly--profit potential and risk in relation to alternative uses of capital.

Non-Governmental Organizations (NGOs)

Directly or indirectly, NGOs often have dramatic impacts on the success or failure of nature tourism. These organizations can be divided into international NGOs, local NGOs, and scientific and educational groups.

International NGOs

Conservation groups based in North America and other industrialized regions have substantial impacts on nature tourism in developing countries, including those of Asia-Pacific. Several conservation groups sponsor nature-oriented trips outside of their home countries, as noted previously. Some distribute newsletters, videos, and other information to advise members about trip destinations, tour operators, and sister conservation organizations in other parts of the world. Finally, conservation NGOs help educate a broader public at home about resource management issues in the developing world, such as the issue of tropical deforestation and its consequences. All of this creates interest and information for international visitors who want to experience these phenomena directly.

Additionally, a number of the major conservation NGOs employ lobbying tactics to bring pro-conservation pressures to bear on multilateral development banks, bilateral development agencies, and national governments. This can mean advocacy of policy positions favoring nature tourism and extractive reserves rather than logging and shrimp farms, for example. By attempting to change program priorities within the development banks and agencies, the NGOs sometimes attain a very powerful influence.

Local NGOs

By now, the majority of developing countries have active conservation NGOs, many of which help shape national, regional, or community conservation policy. Some of the local NGOs interact with international partners, but others operate strictly on their own. As noted, local NGOs sometimes participate in nature tourism as hosts at particular sites and projects. This is particularly true of NGOs which are "friends of conservation at"--a particular park or project.

Typical problems with local NGOs include weak or uncertain funding, and power struggles within and

between different groups. Successful local NGOs are distinguished by charismatic leaders, dedication to well-defined purposes, and good communications with government agencies and the news media.

Scientific and Educational Groups

Scientists, teachers, and students at university and secondary levels are enormously important in nature tourism. Many are among the most enthusiastic and influential nature tourists. Even more importantly, many individuals from scientific and educational institutions are leaders in biological and policy studies of protected areas, tourism, and links between them.

A number of university professors advise governments and development agencies on the scientific management of protected areas, including areas visited by nature tourists. Other scientists and academics are highly influential in training parks managers, designing curricula for environmental education, and helping determine policy agendas for the management of natural resources in collaboration with government colleagues. Hence, success in nature tourism is helped when there is encouragement for participation by universities, natural history museums, secondary schools, ecological societies, and the like.

THE ROLE OF DEVELOPMENT ASSISTANCE IN NATURE TOURISM

Development assistance agencies like USAID can play a key role in initiating and strengthening nature tourism in client countries. Nature tourism fits within an overarching framework of protecting biological diversity, stimulating private enterprises, and generating rural employment and incomes. These elements are subsumed within USAID's strategy statements in a majority of client countries. Development assistance for nature tourism is organized according to several strategic interventions, as briefly sketched in the remainder of this paper.

Assessment of Potential Gains

Development assistance for nature tourism begins with analysis of net benefits (or net costs) of enlarged (or reduced) nature tourism activity. This requires drawing together information on numbers of nature-oriented travellers, their origins and destinations, their patterns of expenditures, their generation of employment and incomes, and their social and environmental impacts. Ideally, this is done for several conceptual and technical alternatives defined by the stakeholders working together. Estimates of current and potential benefits are needed to obtain policy support and eventual financing, both public and private, for specific programs and projects.

Much early assessment is comprised of pre-feasibility and feasibility studies that identify investment needs and constraints. This reveals the best opportunities for development assistance to overcome weak links, complement financing in the private sector, complement other aid-funded projects, and define partnerships with conservation NGOs and other players.

Strategy Development

The initiation or enhancement of nature tourism relies on a well-defined strategy, or action plan, defined and debated by the stakeholders identified in preceding sections. The strategy addresses links between a country's nature tourism and tourism as a whole; the mix of policies and incentives to encourage nature tourism to move in directions specified by the strategy; the use of fees, taxes, and other fiscal instruments to finance management of nature tourism; the participation of local residents in deciding and implementing projects for nature tourism; the determination of ecological and social carrying capacity at nature tourism sites; and contingencies to meet adverse circumstances and cyclical downturns affecting nature tourism.

In some countries, the mechanism for strategy development in nature tourism is a council of representatives from the public and private sectors. These individuals articulate the interests of the stakeholders, viz., the tourism ministry or institute, the agencies responsible for protected areas, the tour operators, the landowners and users adjacent to the destination attractions, the hotel and restaurant owners, the conservation NGOs, the universities and educational institutions, and so on. The council is a forum to debate competing views, compare alternative proposals, and works towards compromises where values conflict.

In some cases, such a council may seek funding for projects, and possibly implement them through contracts and grants. However, the first and primary responsibility is to facilitate a dialogue among organizations and persons who otherwise do not normally meet together, and who frequently hold conflicting positions. Hence, the council is charged with a potentially important mediating function.

One of the most challenging aspects of formulating development strategies for nature tourism is eliciting support and participation by local residents, particularly by subsistence populations living in and around nature reserves. An earlier section ("community development") outlined examples of community participation in nature tourism. Yet these are the exceptions. Most evidence to date reveals failures to include local landowners, land users, and small businesses in discussions, planning, and implementation of nature tourism.

This is unacceptable from the posture of USAID and other development agencies, and certainly counterproductive for the success of projects. It can be a deliberate focus of USAID to strive to see that nature tourism includes local participation, and to document results of these efforts in order to provide learning experiences later and elsewhere.

Provision of Infrastructure

This refers to airstrips, roads, trails, wildlife blinds, visitor centers, campsites, and picnic areas. Infrastructure also includes lodges, hotels, eating establishments, and other dimensions of visitor accommodation. Typically, the desired infrastructure is described in master plans and feasibility studies. Here the development assistance agency has the opportunity to promote planning and feasibility work, and to fund capital improvement projects.

Private firms need a clear understanding of government policies and plans for infrastructure development in terms of phasing and timing. They also need to understand government policies regarding construction codes, zoning regulations, private concessions on public lands, and private tour businesses near national parks and nature reserves. Similarly, governments must have information on intended development of lodges, private nature reserves, and other private investments in order to draw up policies and fund complementary public investments. Much of this planning and coordination can occur through the medium of the public-private council for nature tourism, as discussed earlier.

Provision of Training

The formation of human capital in nature tourism includes education and training across an entire spectrum of tourism policy, tourism promotion and marketing, management of nature reserves, natural history interpretation, environmental education, language training, community outreach, hotel and restaurant management, and other technical and managerial fields. Projects for training and education in nature tourism can be formal or informal, and aimed at different levels of experience and prior education of the participants. In partnership with the development assistance agency, providers of this education and training might involve various combinations of universities, natural history museums, international and local NGOs, government agencies, and community development groups.

As demonstrated by the example of a private university in Costa Rica, it may be possible and desirable in some countries to develop an entire curriculum in nature tourism. Other initiatives, both public and

private, focus on the training of natural history guides, given their centrality in successful nature tourism. In summary, the needs for education and training in nature tourism vary enormously by existing strengths and deficiencies across countries. A major part of the initial diagnosis of opportunities and needs in nature tourism should concentrate on identifying these strengths and deficiencies.

Marketing and Promotion

Nature tourism, as any other form of tourism, attracts its clients through images of a potential experience. This image is created and diffused through tourism ministries and institutes, airlines, tour operators, travel companies, and travel agents. Other passive and active partners in marketing and promotion sometimes include conservation NGOs, national parks agencies, and returned nature tourists who recruit friends and family for future visits.

Development assistance can play an important role in marketing and promotion--if this is an appropriate focus--by funding marketing surveys, familiarization visits by international travel writers and tour operators, visits to international tourism fairs by local entrepreneurs, and production and distribution of high-quality promotional materials. Interventions in marketing and promotion demand considerable coordination between government resource agencies, government tourism authorities, and the private firms which own and manage accommodations and transport facilities. Usually, however, there is common interest in promoting the natural attractions of a country as a whole through the co-funding of brochures, videos, maps, and other materials.

Fiscal Management

As noted previously, it is desirable that nature reserves be financially self-supporting in order to minimize burdens on national budgets. Besides budget appropriations, sources of revenue to enhance protection and management of natural areas include entrance fees, other user fees and licenses, private contributions, and grants from international organizations.

A development assistance agency like USAID can help a national parks organization and other public and private managers of nature reserves with projects to increase revenue flows. In some cases, this might take the form of one-time grants or permanent endowments to bridge funding gaps. In other instances, the development assistance agency provides experts on fiscal management to improve accounting systems, to evaluate charging higher entrance fees, and to locate foundations and other donors for private gifts. Effective fiscal

management normally requires a variety of approaches and a coalition of several partners, repeating a familiar theme in this paper.

Resource Management

Survival and growth of nature tourism depend on sound protection and management of the nature reserves, both public and private, which serve as destination attractions. In this respect, development assistance agencies have opportunities to fund projects in reserve policy, planning, development, and administration. Essential focal points in these efforts are carrying capacity, infrastructure needs, protection strategies, fiscal management, and visitor management. Around the world are many different models of managing protected areas, and many different frameworks for the participation of development assistance agencies in that objective.

Tourism Management

The long-run growth of nature tourism is contingent upon satisfactory experiences of both guests and hosts. This depends on consistent and dedicated corrections of problems and potential problems. Complaints and adverse circumstances need to be aired and addressed, so that feedback becomes useful for re-directing nature tourism in positive directions.

Typical problems to be corrected include irreputable tour operators, poor guide services, unacceptable risks of physical dangers and illnesses, and substandard accommodations and meals. Development assistance has a role to play in helping establish or strengthen hotel owners associations, tour operators associations, nature guide associations, etc., set guidelines and standards and monitor performance. In the design and implementation of these efforts, it is often difficult to separate nature tourism from tourism as a whole.

SUMMARY

Nature tourism is travel to relatively undisturbed parks and natural areas, wetlands, wildlife reserves, and other areas of protected flora, fauna, and habitats. In the context of "alternative tourism," nature tourism is a small, but growing segment of the tourism industry. The segment includes independent travellers, tour groups, and school and scientific groups. Nature tourism has hard and soft dimensions as defined by the scientific and physical rigors of the experience.

Attention to nature tourism in the developing countries is relatively new, and experience is still emerging. Yet much of the current opinion suggests that, when pursued intelligently and with adequate foresight,

nature tourism has the potential to generate economic benefits while contributing to environmental conservation. Another stream of opinion points out numerous risks of environmental degradation, economic leakages, low earnings capacity, and uncertain social impacts. To be emphasized is that the balance of benefits and constraints can never be answered in the abstract, but rather requires an objective assessment in a given setting.

The success of nature tourism hinges on orchestration of efforts by several stakeholders. Among them are the nature tourists themselves, local landowners and users, several categories of government agencies, tour operators, investors and concessionaires, and various kinds of NGOs. Sometimes a dialogue among these disparate interests can be facilitated through the creation of a public-private coordinating council for nature tourism or similar entity.

Development assistance agencies like USAID have the opportunity to become useful catalysts in nature tourism. Interventions begin with assessments of benefits and costs of nature tourism under alternative scenarios. This is followed by the formulation of a development strategy specifying policies and incentives, financing mechanisms, participation modes, carrying capacities, and contingency plans. For defined projects in nature tourism, development assistance is valuable in helping to finance infrastructure, training, marketing and promotion, fiscal management, reserves management, and tourism management in general.

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NATURE TOURISM IN NEPAL

Tracey Parker

INTRODUCTION

Nature tourism is a new term for an old activity: for many years, tourists have travelled to see other lands, not for resorts or monuments, but for wildlife, rivers, forests, and mountains. However, today such tourism is popularly referred to as nature tourism, environmental tourism, or "eco-tourism," taking visitors to see rare and endangered habitats and species. In theory, these tours are accompanied by guides trained as naturalists to ensure that environmental education occurs—a key component in nature tourism. It also attempts to minimize the group's impact on the environment, preserving natural habitats that are popular with tourists. Lastly, nature tourism overlaps with "adventure tourism," which often involves travel to remote areas, and usually involves some degree of dangerous or strenuous activity.

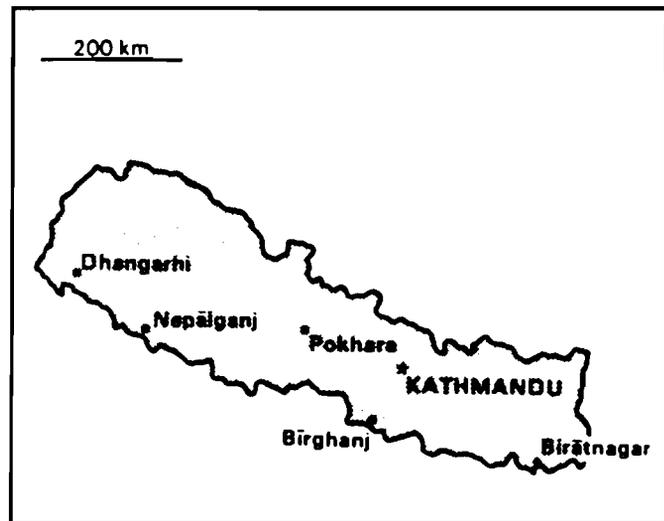
The Definition of Nature Tourism

Tourism can be grouped into many categories as listed in Table 1. The reasons for travel are not mutually exclusive, and on many trips multiple aspects are included. For example, tourists may undertake both luxury and sporting activities at a resort. However, most trips are spurred by one of the major categories. Activities in Table 1 that are considered nature tourism in the strict sense are shown in italics. Broadly, nature tourism can be defined as any activity that uses natural resources; these activities are underlined.

Attributes of an Environmental Tour

A nature tour should differ from a regular tour on several aspects including surroundings, pace, and depth of information given. Such tours go to more remote areas, "off the beaten track," and might involve hiking, as is the case of searching for wild troops of mountain gorillas in Rwanda or Zaire. In some cases, transportation is provided on a cruise ship where luxury services and comfortable accommodations can be provided, even in hard-to-access places.

The pace of nature tours should differ from regular tours, placing less emphasis on "getting from point A to point B in one day." Instead, time is needed for animal viewing, photography, exploration, lectures, and discussions. When this type of stationary activity,



Central Intelligence Agency, *The World Factbook* 1991.

or activities, radiates from a central location, construction of lodges or study centers is financially viable.

Guides on nature tours are particularly key because they are responsible for educating tourists on the importance of the local environment. As a result, they are often scientists or specialists in their fields. For example, the American Museum of Natural History Discovery Cruises are led by museum experts and guest naturalists, including ornithologists, anthropologists, herpetologists, and animal behaviorists. Lectures are often included in the schedule providing the necessary background information on the subject. In the extreme, a study camp might be offered with courses focusing on one aspect of an area's natural history, such as bird life, botany, or geology. An example of such a camp is the Nature Study Camp in Ladakh, India, operated by Mountain Travel.

Ideally, nature tours are conducted with small groups to facilitate interaction between the naturalists and the tourists. Small groups also lessen the negative impact of the group on the environment.

Group activities are not the only type of nature tourism. Individuals often arrive in a region armed with

Table 1. Tourism categories and related activities

Category	Activities
Luxury	Eating, sunbathing, gambling, dancing
Shopping	Purchasing local or discount items
Sports (facilities)	Tennis, golf, squash, snow skiing (downhill), volleyball, aerobics
Sports (dispersed)	Water sports (<i>snorkeling</i> , <i>scuba diving</i> , water skiing), <i>cross-country skiing</i> , <i>rock climbing</i> , <i>mountaineering</i> , <i>kayaking</i> , <i>canoeing</i> , <i>river rafting</i> , <i>trekking</i> , <i>hiking</i> , <i>caving</i>
Cultural/Historical	Museums, festivals, archeological sites, temples, photography
Natural History	<i>Wildlife viewing</i> , <i>mountain viewing</i> , <i>wildflower study</i> , <i>nature photography</i>
Hunting	Fishing, hunting
Health	Spas, treatments, diet, exercise, yoga, meditation
Escape	Exotic surrounding, drugs, cheap food, and accommodation
Religious	Pilgrimage, study

Underlined activities are considered environmental tourism since they utilize wildlands; those in italics fall under the "new" nature tourism sphere.

binoculars, pick up a local bird book and head "up country," or come with snorkel and fins and head for the reefs. Nepal attracts a large number of individual tourists who are catered to by local lodges and guides.

TOURISM IN NEPAL

General

In 1988, 266,000 foreign tourists arrived in Nepal. This number dropped to 240,000 in 1989 because of the adverse publicity related to the Indian embargo of Nepal. Although Indian tourist numbers fell in 1989 due to tensions between the two countries, Indians make up the largest group of visitors (27 percent in 1988). Many Indians come on pilgrimages, while others come for "luxury" vacations or buying sprees. Non-Indian tourists come to Nepal primarily for cultural and historical sightseeing, natural history, and dispersed sporting activities. These last two categories are considered part of nature tourism: activities that have existed in Nepal since the country was opened to outsiders in the 1950s. Nepal's overall nature tourism activities—trekking, wildlife viewing, and more recently river rafting, are world famous (Table 2).

Nature tourists, who numbered 77,539 in 1987, account for 31 percent of all tourists that year. Among non-Indian visitors, the percentage of nature tourists is undoubtedly much higher (perhaps up to 50 percent), since few Indian nationals trek (only 1,022 in 1988). Tourists whose stated purpose for coming to Nepal is trekking, increased from 14 percent in 1988 to 17 percent in 1989 (although over 23 percent actually took out trekking permits). In addition, a high percentage of tourists (75 percent) claim their reason for coming to Nepal is pleasure (Department of Tourism 1990). Many of these individuals are possibly involved in other nature tourism activities such as river rafting and wildlife viewing in Royal Chitwan and Bardia National Parks in the Terai.

After Indian tourists (72,058, or 27 percent in 1988), travelers from the United States are the most numerous at 10 percent of the total number of tourists visiting Nepal. This is followed by tourists from the United Kingdom (8 percent), West Germany (8 percent), Japan (7 percent), France (6 percent), and Italy (4 percent). Nepal also attracts younger tourists. According to a 1988 study, 65 percent of all tourists are between 16 and 45 years of age (Department of Tourism 1990).

Table 2. Nature tourist numbers in Nepal, 1987

Type of Activity	Per Annum
Mid-altitude trekking (up to 6,000 masl)	47,275
High-altitude mountaineering	796
Rafting	3,612
Wildlife tourism	25,844
Professional hunting	12

Source: ERL (1989).

Table 3. Tourist expenditures in Nepal per day according to occupation

Occupation	Expenditures per day (US \$)
Consultants	74.22
Scientists	72.88
Diplomats	67.07
Housewives	59.36
Retired	55.90
Accountants	51.06
Business People	46.12
Artists, Journalists, Service Holders, Drivers, Lawyers, and Engineers	40.08-33.86
Farmers, Students, Carpenters, Construction Workers, and Social Workers	23.01-14.16

Tourist arrivals vary by month, from low numbers during the monsoon months of June (5.8 percent) and July (4.8 percent) to a peak in October (12.6 percent) when the weather is more favorable.

According to a more recent study of tourist activity (Interpose Research 1990), although North Americans make up 14 percent of the sample, they are 28 percent

of those trekking. Likewise, Europeans and Australians make up a disproportionately high percentage of trekkers. Ninety-two percent of all trekkers are either European, North American, or Australian. The survey also shows that young tourists (21-40 years old) predominate (67 percent), an increase from the 1988 study previously mentioned. Male tourists outnumber female tourists 80 percent to 17 percent.

Table 4. Expenditures of tourists in Nepal (US \$)

Type of Tourist	Number of Tourists	Number of Days	\$ Per Day	Total \$
Business	12,008	6.0	52.95	3,814,942
Pleasure	200,775	5.9	47.69	56,492,263
Official	9,781	7.7	40.96	3,084,849
Trekking	36,937	25.8	24.72	23,557,532

In the 1990 Interpose Research study, the average per capita per day tourist expenditure is estimated at US \$34.46. Broken down by purpose of trip, the results are as follows:

- Business \$52.95/day
- Pleasure \$47.69/day
- Diplomacy \$43.31/day
- Official \$40.96/day
- Trekking \$24.72/day
- Pilgrimage \$10.84/day

Only 12 percent (excluding international airfare) is spent on recreation, such as sightseeing and trekking although it is one of the most popular activities.

Occupational breakdown for expenditures shows large expenditures by consultants, scientists, and diplomats (Table 3). It is interesting to note that consultants on average spend the most per day in Nepal (\$74.22) bringing in three to five times more money than those at the other end of the expenditure scale (students, farmers, carpenters, etc.).

The average length of stay for all tourists is 9.3 nights per visit, with trekkers staying an average of 25.8 nights in the country. Pleasure tourists average 5.9 nights. Thirty-six percent of all tourists in Nepal travel with their families; 38 percent with a group; and 23 percent as individuals. Eight percent of the tourists' travels are arranged by a Nepali agent; foreign agencies arrange 43 percent (including 13 percent through Indian agents); and 49 percent arrange their own travel.

Even though trekking tourists stay much longer in country than pleasure tourists, they spend much less per day because of the decreased spending opportunities once on the trail. However, according to the Department of Tourism's 1988 figures and the 1990 Interpose Research survey, trekking is the second highest source of overall tourist expenditures (Table 4).

Yet the figures in Table 4 may not reflect the true expenditures of the various tourists. For example,

although 36,937 indicated that they came to Nepal for trekking, 61,273 took out trekking permits. This last number does not include trekkers in the Kathmandu and Pokhara valleys where permits are not required. Therefore, total numbers of trekkers and expenditures by trekking tourists may be appreciably higher than \$24 million. Furthermore, some of the tourists in the "pleasure" category are involved in nature tourism in the form of river rafting and wildlife viewing in the Terai. As a result, some expenditures on nature tourism activities are not appropriately recognized.

Additional information on tourist expenditures is seen in Table 5 which shows the fees charged to tourists for using natural areas in Nepal. According to an ERL study (1989) these charges, with the exception of the Annapurna Conservation Area fee, have no explicit environmental objectives. They are used to raise government revenues. Allocations to national parks are not tied to tourists' visits and, therefore, do not reflect park funding needs. Since charges for all national parks are the same, they are not used to control access to fragile or crowded areas. Also, since these charges are not collected at park entrances, tourists do not realize the connection between the charge and environmental protection--nor should they since these monies do not go directly to the parks.

Institutions Involved in Tourism

There are many government and several non-government institutions involved with nature tourism. These include:

- Department of National Parks and Wildlife Conservation (DNPWC)
- Department of Forestry (DOF)
- Nepali Army (provides guards for the national parks and consumes 70% of the park's budget)
- Army Protection Units (APU)
- Royal Nepal Airlines (RNA)
- King Mahendra Trust for Nature Conservation (KMTNC)
- Ministry of Tourism (MOT)

Table 5. Fees collected for nature-based tourism in Nepal (Nepal Rupees)

Name	Agency	Amount (NRs)	Collector	Deposit
Parks / Reserves	DNPW	250	Park Entrance	Ministry of Finance
ACAP fee	KMTNC	200	Central Immigration Office KMTNC, DOIm, Pokhara	KMTNC
Rafting fee	MOT	80	Travel Agents (sent to Nepal Rastra Bank)	Ministry of Finance
Mountaineer fee	MOT	14,000-73,000	Nepal Rastra Bank (Hard Currency)	Ministry of Finance
Trekking fee	DOIm	60-112 (per week)	Central Immigration Office Kathmandu	Ministry of Finance
Hunting license	DNPWC	2,000-5,000	Nepal Rastra Bank	Ministry of Finance
Hunting permit	DNPWC	800-2,000	Nepal Rastra Bank	Ministry of Finance

Source: ERL, 1989

- Department of Tourism (DOT)
- Department of Immigration (DOIm)
- Tourist Guide Association of Nepal (TGAN)
- Trekking Agents Association of Nepal (TAAN)
- Nepal Association of Travel Agents (NATA)
- Nepal Mountain Climbers Association

Institutions involved in tourism, but not necessarily specializing in nature tourism, include:

- Nepal Hotel Association
- Restaurant Association

Tour and Trekking Companies

As of January 1990, there are 82 registered trekking and mountaineering agencies in Nepal [55 of which are members of the Trekking Agents Association of Nepal (TAAN)] (Banskota and Upadhyay 1990). According to the Director General of the Department of Tourism, many new trekking companies have registered since the revolution of the spring of 1990. Of the 12 companies interviewed by Banskota and Upadhyay (1990) few, if any, were incorporating environmental awareness into their excursions.

Several companies complain that there are no government incentives for private enterprise in the tourism industry in Nepal. Tourism has created an externally driven service economy dependent on imported goods, use of local resources, and new social arrangements. (Zurick 1992) Yet companies have difficulty importing quality items for tourist's use (particularly food items - butter, wine etc.), get no government help in developing tourist facilities, and are provided no financial incentives or tax breaks to import vehicles or build hotels.

Furthermore, education of owners, managers and personnel in the tourist industry on environmental issues is cited by many as necessary to improve nature tourism. Frequently mentioned are the need for fuel depots on the trails to provide an alternative to firewood, and education on litter control. Improved medical assistance on trails is also identified as a need, not just for tourists, but for the local populations as well. Tourists also indicated a demand for agricultural produce on major trekking routes.

Congestion is also mentioned as a major problem on the main trekking routes. There are three main areas

for trekking in the country: Annapurna Conservation Area, Langtang National Park, and Sagarmatha National Park. By limiting the number of trek routes and not the number of trekkers, these three areas are experiencing increasing congestion. Preliminary figures for 1990 show a drop from 68 percent to 60 percent of the total visitors to the Annapurna Conservation Area. The region is considered to be overcrowded and tourists are choosing to go elsewhere for treks. (Zurick 1992) In the Sagarmatha National Park Management Plan, congestion is dealt with by encouraging tourism only in the main corridors, thereby minimizing damage since confined areas of tourism are easier to manage. However, diversification of destinations is also needed to prevent further overcrowding and congestion. This is occurring with the opening of two formerly restricted areas: Kanchanjungha in the east and Dolpo in the west. Both areas are experiencing rapid growth as tourists seek alternative trekking routes.

Transportation facilities in Nepal present a very restrictive bottle neck for tour companies. Difficult roads and limited seating on flights preclude large volumes of tourists in the country. Furthermore, there are many areas that tours do not go to because there are no hotel rooms available. At most cultural sites in the Kathmandu valley, there are no bathroom facilities or restaurants, while too many shops and new construction mar the view of key attractions. Lastly, nature tourism opportunities within the Kathmandu valley are rarely used.

Touring companies believe most nature tourism contributes little to the overall Nepali economy, with the exception of wildlife viewing in the Terai. When the possibility of a chain of standard tourist lodges on trekking routes is mentioned (which would increase spending on the local level), agents are not enthusiastic. They claim that trekkers want to camp, and not stay in a lodge. However, agents do say there is demand for toilets and rubbish disposal facilities. When the proposition of including village visits in trekking itineraries is raised, companies state that such trips are not included because they can be overdone and disrupt the villagers' lives. In terms of overall development, tour companies feel that the government should pick one

area at a time to development, and concentrate on improving the old areas. Mentioned for development are Gorkha or Kirtipur--areas with heavy tourist activity and no good hotels.

Many tourism companies agree that sport fishing has great potential in Nepal as a tourist attraction, but that the necessary roads and facilities are lacking. Furthermore, rivers with high game fishing potential have been modified by dams, blasting, and poison damaging good fishing areas. The Marsheer, however, could be an important game fish opening up an additional avenue for nature tourists in Nepal. Introducing game fishing also fits in with Nepal's long history of foreigners coming to hunt game making it a logical addition to tourist activities.

Although many of the large hunts of old now seem to be massive and wasteful slaughters, game hunting is currently legal with a license (excluding endangered species). Dolpatan Hunting Reserve is open to foreign hunters with the required licenses; however, they must be accompanied by professional Nepali hunters. There are currently two companies that provide these guides.

Tour Guides

Guides in Nepal are required to be licensed and registered. The newly formed guides' association, Tourist Guide Association of Nepal, recently published the *Turban Bulletin* which includes a list of their members (approximately 170), telephone numbers, and languages spoken. Of the 578 nationally licensed guides, about 50 percent are not practicing and have let their license lapse. Of the association's members, about one-half are employed with a salary and the rest are free lance guides. A nine-week training course is required for guides by the Department of Tourism, however, it is reportedly inadequate. There is also need for additional specialized training and refresher courses. Besides environmental problems, the association is especially sensitive to the negative impacts of large numbers of tourists on local cultures. Such impacts encourage children to beg, prostitution, drug use, disease introduction, and loss of cultural identity. The group

Table 6. Environmental conservation aspects of tourism

Natural Resources	Guides	Conscience	Productive Aspects
Endangered species, exotic wildlife, remote locations,	Knowledgeable naturalists, scientists, professors, educational materials	Low impact on the area, limited number of visitors, limited destruction, low impact transport	Research assistance, cleanup tours, natural beauty activities, wildlife census

is dedicated to their profession, and quite aware of their pivotal role in rural development as well as degradation.

Nature Tourism

There are four basic aspects of nature tourism: natural resources, guides, conscience, and productive aspects. All four are used to "sell" different types of tours or destinations (Table 6). Of course, of the four, natural resources are a prerequisite for the whole system. Fortunately, this is a category where Nepal has much to offer, and tour operators do their best to sell the magnificent aspects of the Kingdom. The other three parts of nature tourism—guides, conscience, and productive aspects—are used to a lesser extent in attracting tourists to Nepal. For example, well-trained naturalist guides are common in the larger lodges in Royal Chitwan National Park, but not in other tourist areas, although several large operators claim to have naturalists on staff to accompany groups.

Although the "conscience" items found in Table 6 are frequently mentioned by the larger companies (carry fuel for clients, bury garbage, etc.), such claims are often superficial as company regulations are easily ignored by staff when in remote areas. Several companies proudly say they only burn kerosene, failing to mention that the support staff (2 to 3 persons per client) burn firewood. At higher elevations, when clothing and bedding for the trek staff are usually inadequate, wood fires may burn much of the night to provide necessary warmth.

Productive aspects of a tour are litter clean-up campaigns, helping with research work, or a wildlife census. The Nepal Conservation, Research and Training Center (NCRTC) has used Earth Watch Volunteers at the field research station at Royal Chitwan National Park for the past two years. In 1990 alone, 23 people volunteered to help in studies of toddy cats, fishing cats, and trapping sloth bears.

PROBLEMS AND CONCERNS

Environmental Impact

Tourism is not without its negative impacts. This is particularly true for the environment which is sensitive to large influxes of tourists. Negative impacts increase when movement and behavior are not well managed. This is a common problem in Nepal where tourists are allowed to travel on their own. Trekkers in remote areas have introduced problems of litter, wood cutting, crowding and cultural degradation.

Such problems have sparked a continuous debate in

the Nepal tourist industry over the management of tourists in remote areas. The two camps are divided between those who believe tourists should be kept in groups and guided by a licensed guide, and those who believe individual trekkers (FITS - free and independent trekkers) should be allowed to travel on their own. In the recently opened Kanchanjungha area in eastern Nepal, only groups are allowed in trekking. It is argued, mostly by those who depend on tour groups for a living, that groups do less damage to the environment (by burning kerosene and being under the guidance of a licensed guide) and less damage to the village cultures they pass (since they are self contained units carrying all their food, shelter, and labor with them). Their detriment to the environment comes from the huge staff accompanying the group and the staff's consumption of firewood. However, the local villagers miss potential opportunities in terms of labor (groups bring their own porters), and commercial possibilities (groups are outfitted in Kathmandu and Pokhara, adding very little to the local economy).

On the other hand, independent trekkers bring a great deal of commerce to local inhabitants, and if properly managed, can be a driving engine of rural development. However, such trekkers have no one to ask them not to litter nor instruct them on proper dress and etiquette, making their impact on the area even greater. Independent trekkers also are often responsible for firewood consumption since they eat at tea houses and lodges that use wood for cooking. Overall, independent trekkers pose a potential problem because they are difficult to manage and monitor.

Structural Problems

Although Nepal's internal transportation system leaves much to be desired, it should be noted that the primitive structure of Nepali transportation and the fact that many areas are barely accessible are part of Nepal's appeal. It is also this rugged terrain that has kept many of the areas unspoiled and forests intact.

In spite of the positive effects of a poor transportation system, improvements still are needed in domestic air services and the condition of major roads.

Structural improvements needed on major trekking routes include kerosene depots, garbage disposal systems, and latrine facilities. Another area of concern for many trekkers is the availability of emergency medical services in remote areas, including rescue facilities (helicopters, radios, etc.), and medical facilities of western standards in Kathmandu and Pokhara. Tourist facilities outside of the major urban centers are also lacking despite the fact that there is a demand for moderate, clean lodges in other areas of the country.

Policy Impediments

More rigorous rules and regulations need to be enforced at national parks and other remote natural areas. In such fragile areas, all members of tourist groups should only burn kerosene or gas, not just the tourists themselves. Furthermore, guidelines for developing of facilities (eg: lodges, campgrounds, latrines, garbage dumps, etc.) in sensitive areas are needed. Along with these regulations should come training for professionals in environmental issues and enforcement.

Training of "environmental" guides is one method to limit negative environmental impacts. Along with training, regulations need to be drafted and enforced stating that tourists are only allowed into certain fragile areas when accompanied by an environmental guide. This can lead to a dual system of guiding, where the traditional sirdar (trek leader) is responsible for logistics and porters, and the environmental guide provides information, lectures, and oversight of the group's impact. Such guides might have degrees in biology or be graduates of the Institute of Forestry.

An additional method of increasing revenues and potentially limiting the number of tourists in fragile areas is to increase fees for trekking and visiting natural areas. On a world standard, the fees charged in Nepal are very low. The tourism market can probably bear higher costs without losing many visitors. Even if some tourists decide not to visit because of higher fees, this is a valuable management tool to control the numbers of visitors to various areas. Such a fee increase needs to be accompanied by a mechanism to direct this extra money to areas tourists impact--national parks, forests, villages, and conservation areas.

Lastly, there needs to be a simpler system for extending visas and issuing trekking permits. Most tourists are put off by the current system and the amount of bureaucracy involved. Tourists would probably stay longer if trekking permits are open-ended.

CONCLUSION

In the Kingdom of Nepal, there are innumerable ways to improve nature tourism for the benefit of Nepalis, the environment, and tourists. Income from tourism can generate financing for many local, private development activities, such as alternative energy sources (micro-hydro dams, solar water heating, back-of-the-stove water heating, etc.), improved drinking water facilities and sanitation, better equipped schools, more health clinics, and more intensively managed forests. Currently, a great deal of the foreign exchange brought into Nepal is not spent in rural areas while trekking or

undertaking other nature-oriented activities. This is despite the fact that many people only come to Nepal because of the natural resources. Environment may be the reason for coming to Nepal, but much of tourist expenditures are spent on hotels, food, and souvenirs--all found primarily in urban areas.

The goal of tourism development should not be solely to increase Nepal's income through tourism, nor to increase private enterprise activity in nature tourism. It should also not occur at the expense of villagers, species, and wildlands. The challenge is to see benefits of tourism reach the local level, while providing for the protection and conservation of fragile resources. To do this, beneficial policies need to be in place, not only to encourage private enterprise and development of visitor facilities, but to direct these activities to the rural level with adequate guidelines and enforcement for the protection of natural resources.

Opportunities and Recommendations

Nepal has begun the process of analyzing the benefits of better management of nature tourism. Interesting ideas on natural resources and tourism at the policy level are mentioned in the tourism section of the draft final document *Natural Resource Management for Sustainable Development* (ERL 1989). These include institutional reorganization so responsibility, or at least leadership, of nature tourism is within one organization. The report also states that an "environmental fee" of some sort (in dollars) needs to be charged to all tourists that leave the Kathmandu Valley. This money should go directly to national park management as support for natural resources and local communities. A simple method of collection is to have an environmental fee payable at the airport on arrival. Upon receiving the appropriate stamp in a tourist's passport, it would serve as a trekking permit for any unrestricted area in the country. This would also eliminate standing in line several days to get trekking permits.

Furthermore, improvements with respect to private enterprise need to take place if sustainable nature tourism is to occur. Some promising areas of improvement in nature tourism include:

- Providing fresh agricultural products on main trekking routes.

Trekkers want commodities such as fresh vegetables, fresh and dried fruits, eggs, and fresh meat (rabbit, chicken, goat). Establishing outlets for fresh produce provides benefits to local villages since the level of income for farmers would increase. It also means that fewer supplies would need to be imported. As a result, more tourist dollar stay in Nepal and more impor-

tantly, at the village level. Project input could include vegetable seeds, training in intensive vegetable gardening, composting techniques, small animal stock, small animal husbandry training, shop owner training, and agroforestry.

- **Assistance to small enterprises in setting up kerosene stations on major trekking routes.**

Requiring support staff to use kerosene only would make it more appealing for entrepreneurs to establish kerosene stations (due to larger demand). Assistance in securing necessary licenses to buy kerosene wholesale, designing techniques for transporting fuel on pack animals, designing storage facilities, training for small business management, etc. can be provided by the government to ease the burden of establishing such depots. ACAP and the DNPWC currently operate kerosene depots in conservation areas and national parks. Their experience would be valuable in setting up a private supply system.

- **Training guides in environmental and cultural subjects.**

Environmental training would be similar to a "training of trainers" course, since the guide's biggest challenge is to "train" their tourists about environmental etiquette. Guides are the key to controlling tourist behavior and minimizing group impact on the environment. A new organization, Tourist Guide Association of Nepal, can be instrumental in ensuring that environmentally sound practices are followed by both group and individual tourists.

- **Establish comfort stations at sightseeing locations.**

Many tourists will pay for a clean toilet around the Kathmandu Valley. Little square footage is needed and overhead is low for this small business. Assistance might consist of loans, help in securing necessary licenses, design assistance, and management training, etc. A chain of comfort stations around the valley could be a very profitable business.

- **Encourage small entrepreneurs to market alternative energy sources.**

Solar heaters, back-of-the-stove water tanks, micro-hydropower electricity, etc. help relieve the demand for wood. As a result, such techniques should be developed and incorporated. Training and work in this area have already occurred in the Annapurna Conservation Area.

- **Encourage development of bike trails in the Kathmandu and Pokhara valleys.**

Asphalt trails (3 to 4 meters wide) paved on the several loops around the Kathmandu and Pokhara valleys would be ideal for bike touring. Current highways can be used for parts of the routes, although access for motorized vehicles should be limited. Furthermore, the addition of small, clean lodges, built in classic valley styles, allows for overnight bike trips increasing the appeal and feasibility of bike touring. Courtyard and porch dining at the lodges also add to the charm. Facilities can be built in both farmland and village settings. Besides viewing the Himalayas during the appropriate seasons, visitors can also enjoy the changing Nepali countryside and agricultural activities (monsoon's green and autumn's gold), not to mention year-round festivals in the surrounding villages. Day-trips to breakfast and lunch cafes would appeal to both tourists and valley residents.

Some additional suggestions for improving tourism in Nepal in general and nature tourism specifically include the following:

- Improve transportation (road, air)
- Open fragile, remote, restricted areas only to "environmentally" licensed guides and groups
- Improve health facilities and clinics
- Improve rescue facilities (radios, helicopters, etc.)
- Distribute information leaflet on trekking in Nepal to trekkers (especially independent trekkers) when they apply for a trekking permit
- Develop "study" trips--botany, geomorphology
- Encourage volunteer research work
- Promote fishing
- Encourage "cultural" sites in remote areas
- Develop nature tourism in the Kathmandu valley: birding, mountain watching, etc.
- Establish meditation retreats
- Enact new policies specific for nature tourism
- Post sign boards
- Open new areas
- Provide training for entrepreneurs/choose area to implement guidelines
- Initiate an international publicity campaign
- Encourage development of a trekking lodge chain (standard resort facilities)
- Organize workshop on guidelines for tourist activities in pristine, remote areas

Nature tourism is dependent on a symbiotic relationship between tourism, local villagers, and the environment. The key to successful nature tourism in Nepal and elsewhere is to carefully consider these three elements in all phases of planning, developing, and implementing tourism programs.

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NATURE TOURISM PROFILE: THAILAND

Santi Chudintra

INTRODUCTION

Thailand's abundance of natural attractions and its unique, exotic culture draw tourists from around the world. This has been especially true during the last decade as the government placed considerable emphasis on developing tourism. As a result, Thailand has emerged as a leading tourist destination in Asia particularly since the 1987 "Visit Thailand Year". However, tourism in Thailand is not limited to mass tourism. The abundance of natural attractions also makes Thailand a prime destination for nature tourism.

As "nature tourism" is not clearly defined, the broad concept adopted in writing this report will concentrate on the following definition:

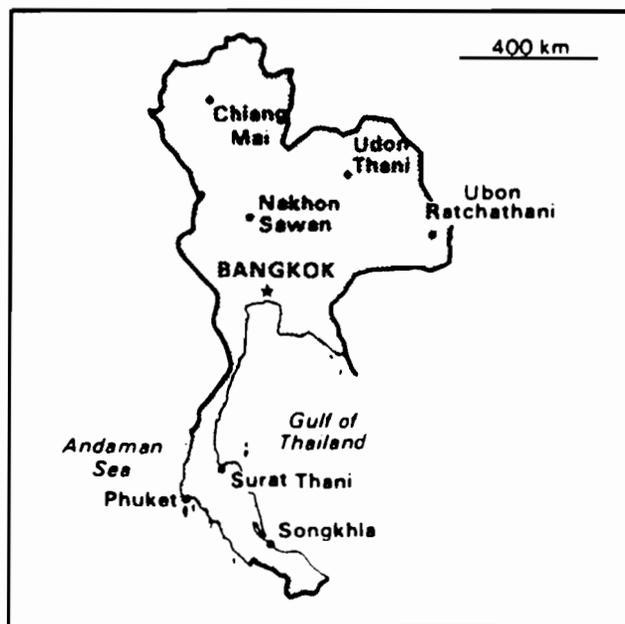
Nature tourism differs from mass tourism in that the latter concentrates mainly on shopping, amusement parks, restaurants, entertainment facilities, and other manmade or partially manmade attractions like beach hotels; while nature tourism consists of travelling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring, and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestations found in those areas.

This report will, therefore, try to give a picture of nature tourism in Thailand derived from data available on a national scale compared with the data from other related studies.

PROFILE OF INTERNATIONAL TOURISTS

Number

The number of international tourists in Thailand soared dramatically from only 81,340 in 1960 to over 5.2 million in 1990. The largest share of tourists comes from the East Asia and Pacific region (approximately 60 percent) with Europeans coming in second at about 24 percent. Tourists from Malaysia, Japan, Taiwan, United Kingdom, United States, Singapore, Hong Kong, Germany, and Australia make up the largest number of arrivals per country (Table 1).



Central Intelligence Agency, *The World Factbook 1991*.

During the past five years, the number of visitors to Thailand has increased consecutively at a double-digit rate, particularly in 1987 when a record high of a 23.59 percent growth rate was achieved. In 1990, due to the Gulf War, the industry growth rate dropped off to only 10.17 percent (Table 2). The number of visitor arrivals is expected to increase at only a 2 to 3 percent growth rate in 1991, to reach 5.43 million. However, the various activities of the "Visit ASEAN Year" in 1992 have targeted tourist arrivals at 6 million.

Average Length of Stay

The length of stay is important in tourism since it denotes the amount of time tourists have to absorb local culture as well as spend dollars. With nature tourism, the length of stay is usually prolonged since longer periods are required for trekking and other nature oriented activities. For Thailand, the average length of stay for foreign visitors rose from 5.58 days in 1985 to 7.63 days in 1989. In 1990, the figure decreased slightly to 7.06 days (Table 2).

Table 1: Number of international tourist arrivals in Thailand by nationality, 1986-1990

Nationality	1986	1987	1988	1989	1990
Grand Total	2,818,092	3,482,958	4,230,737	4,809,508	5,298,860
The Americas	213,410	261,162	327,727	366,016	381,894
Canada	30,943	37,429	56,265	68,450	74,550
United States	172,575	212,575	257,594	282,924	291,635
Others	9,892	115,158	13,868	14,642	15,709
Europe	552,148	719,871	1,068,043	1,207,332	1,322,752
Austria	13,904	20,125	35,673	42,880	42,003
Belgium	12,498	17,963	20,167	22,395	25,574
Denmark	17,844	20,234	27,238	29,707	32,127
France	97,540	130,326	157,381	189,282	194,618
W.Germany	114,478	148,755	190,339	220,824	239,915
Italy	51,421	66,631	86,472	92,399	107,430
Netherlands	30,576	38,371	50,862	57,331	65,742
Sweden	24,943	33,345	48,864	58,691	67,171
Switzerland	38,665	47,964	60,073	71,825	76,263
United Kingdom	99,489	126,309	279,604	293,059	318,220
East Europe	10,667	14,029	18,616	24,255	28,666
Others	40,123	55,819	65,754	104,684	125,023
Africa	14,976	18,209	24,922	27,484	31,943
Middle East	133,004	140,920	124,923	112,865	76,924
East Asia / Pacific	1,695,596	2,125,249	2,410,043	2,844,662	3,214,779
Asean	938,311	1,094,236	11,193,739	1,120,461	1,195,011
Brunei	5,860	7,254	4,906	4,352	4,733
Indonesia	30,926	31,230	32,331	39,209	48,117
Malaysia	652,887	742,394	867,658	766,172	804,629
Philippines	27,913	36,048	40,330	52,324	48,121
Singapore	220,725	277,310	248,514	258,404	289,411
Australia	103,317	123,316	138,443	198,940	226,785
China & Taiwan	158,032	224,999	323,729	453,638	545,629
Hong Kong	164,677	251,376	154,365	259,574	265,585
Japan	261,549	349,558	449,086	546,967	635,555
Korea	26,248	33,776	65,379	110,665	144,747
New Zealand	10,582	13,851	25,601	35,005	35,790
Others	32,880	34,137	59,701	119,412	165,672
South Asia	208,958	217,547	275,079	251,149	270,568
Bangladesh	25,484	27,258	50,281	39,179	42,029
India	114,871	114,371	127,515	125,773	138,415
Nepal	16,321	13,762	17,901	17,370	19,397
Pakistan	36,514	42,398	54,172	43,546	46,217
Sri Lanka	14,906	18,678	23,501	22,474	21,157
Others	862	1,080	1,709	2,807	3,353

Source: Immigration Division, Police Department

Table 2: Average length of stay of foreign visitors in Thailand

	1986	1987	1988	1989	1990
Average Length of Stay (Days)	5.93	6.06	7.36	7.63	7.06

Table 3: Average length of stay in Thailand by foreign visitors by nationality, 1990

Nationality	Length of Stay (Days)
United States	7.54
Europe	10.74
Middle East	10.22
Africa	8.10
East Asia & Pacific	5.48
South Asia	6.16
Total Average	7.06

Table 4: Purposes of visit of international tourists, 1986 - 1990 (percent)

Year	Holiday	Business	Convention	Official	Others
1986	81.74	6.80	0.79	0.98	9.69
1987	87.16	6.02	0.76	0.83	5.23
1988	88.31	7.52	1.05	0.89	2.23
1989	91.05	6.50	0.64	0.56	1.25
1990	89.98	7.37	0.76	0.52	1.37

Source: Tourism Authority of Thailand

European tourists on average stay in Thailand for the longest period (10.74 days), while Americans spend 7.54 days, and visitors from East Asia and Pacific stay only 5.48 days (Table 3). Much of the time spent is related to the length of time and expense involved to go to Thailand. However, the length of time is also indicative of activities undertaken once in Thailand.

Purposes of Visit

Most international tourists come to Thailand for holiday or vacation. The percentage of vacationers increased from 81.74 percent in 1986 to 91.05 percent in 1989, but dropped slightly to 89.98 percent in 1990. The business travellers' share remains constant at approximately six to seven percent of the number of visitors annually (Table 4).

The fact that vacationing or holiday is overwhelmingly the number one reason for visiting Thailand is encouraging for nature tourism planners and policy makers. Thailand is already a well established market for tourism with a reputation fun and adventure. This provides tourism officials a logical window to work with when promoting nature-based activities.

Occupation

The occupations of visitors to Thailand can be categorized in ten groups--four of which dominate. However, it is interesting to note that the percentage of the four major occupations has changed considerably over the years. While shares of professionals, and clerical, salespersons and commercial personnel are increasing, the number of administrative and managerial

Table 5: Occupations of Thailand's international visitors, 1986 - 1990

Occupation	1986	1987	1988	1989	1990
Professionals	14.63	14.35	13.79	18.18	18.02
Administrative and Managerial Personnel	20.89	15.92	12.13	10.40	9.90
Clerical, Sales, and Commercial Personnel	12.37	17.20	21.09	22.47	24.37
Laborers, Production and Service Workers	17.22	16.50	8.95	12.44	10.70
Agricultural Workers	1.03	1.20	2.60	1.10	1.12
Government and Military Personnel	1.54	1.30	1.78	0.89	0.64
Housewife/Unpaid Family Workers	8.67	8.40	7.70	7.47	7.25
Students and Children	9.89	9.38	8.68	7.90	8.28

personnel, as well as laborers, production and service workers are dropping off (Table 5).

Age

More than half of Thailand's foreign visitors are 25-44 year olds. This grouping is further broken down into 25-34 year olds who comprise around 30 percent of the total number of tourists, and 35-44 year olds who make up about 23 percent (Table 6). Having a younger tourist population is beneficial from a nature tourism perspective since they tend to be more adventurous and more willing to endure physical hardships often related to nature tourism.

PROFILE OF DOMESTIC TOURISTS

The Tourism Authority of Thailand does not conduct annual statistical surveys of Thai domestic tourists, therefore, available data is rather limited. However, a study conducted in 1987 showed that the number of visitors travelling to various provinces nation-wide was as high as 62 million--of which 54 million were Thai visitors and 8 million were foreigners. In other words, the number of Thai domestic tourists travelling within the country was seven times greater than foreign visitors (Table 7). This presents a sizeable market for tourism in general; a market that also can be tapped for nature tourism.

Thai domestic tourists patterns differ from international tourists because of the shorter travel time. Thai tourists usually travel during the weekends and long holidays. Their average length of stay is rather short--only one to two days. According to the 1987 study, only 54 percent of Thai visitors who stayed overnight were categorized as tourists; the rest took one-day excursions.

This presents a different or second market for tourism. Although it is not as lucrative as activities that require several days--common in nature tourism--the large number of Thai tourists and the positive growth rate present a potential market for short-term nature activities. As a result, shorter stays should not preclude domestic tourism from being considered in policy making for nature tourism. It merely points out that there are two distinct markets for tourism in Thailand: longer excursions geared toward international travellers and shorter trips for domestic travellers.

Furthermore, the stability of the domestic market should not be overlooked. It is estimated that the number of domestic tourists will increase at a growth rate of five percent annually in accordance with economic and population growth. Thus, there is potential for domestic markets in alternative types of tourism despite the typical brief excursions.

Table 6: Percentage of visitors' age group, 1986 - 1990

Age	1986	1987	1988	1989	1990
Under 15	4.46	4.45	4.84	4.05	4.67
15 - 24	12.04	11.32	12.36	11.32	11.37
25 - 34	30.26	29.62	29.89	30.27	29.72
35 - 44	23.33	23.31	23.26	23.20	23.74
45 - 54	15.42	15.78	15.66	16.37	16.06
55 - 64	9.66	10.32	9.36	9.92	9.71
65 and over	4.83	5.20	4.63	4.87	4.73

Source: Tourism Authority of Thailand

Table 7: Number of visitors to various provinces nation-wide, 1987

	Tourists (1)	Excursionists (2)	Visitors (1) + (2)
Thai	29,680,070 (54.95 %)	24,324,244 (45.05 %)	54,004,314 (100.00 %)
Foreigners	7,572,519 (92.98%)	571,194 (7.02%)	8,143,713 (100.00%)
Total	37,252,589 (59.94%)	24,895,438 (40.06%)	62,148,027 (100.00%)

Source: Tourism Authority of Thailand

NATURE TOURISM

Thailand has an abundance of tourist products catering to various tourist markets—ranging from historical and cultural to natural attractions. It can roughly be summarized that most tourists from the United States, Europe, Australia, and New Zealand are interested in nature tourism, although they visit several cultural attractions during their extensive travel. Some of the tourists from East Asia and Pacific countries, like Japan and Singapore, also are eager to visit natural attractions, though they may prefer the city atmosphere and facilities.

Although a conservative estimate, it is believed that for 1990, there were approximately 1 million foreign tourists who enjoyed nature tourism activities in Thailand. This is out of a total of 5.2 million foreign visitors.

Of the nature activities in Thailand, the two most popular ventures are jungle trekking tours in the north-

ern region of the country and beach tourism in the eastern and southern region.

Jungle Trekking Tourism

The northern part of Thailand consists of a mountainous area endowed with lush forests and jungles. The area is populated with various hilltribes such as the Akha, Lisu, Hmong, Karen, Lahu, and Yao. The jungle trekking tours, which are currently very popular, offer programs of trekking in the jungles and tropical rain forests. Some have rafting or elephant riding as an option with the treks. Tourists enjoy the scenery and tropical flora along the trails and spend the night in primitive hilltribe villages providing an opportunity to experience local culture. Accompanied by the local guide, the tour group usually consists of two to eight tourists. Treks average three to five days in length.

More than 90 percent of jungle tour clients are foreigners. Most come from France, Germany, Australia, or

Table 8: Number of Thailand's national parks and visitors

	1986	1987	1988	1989	1990
National Parks	58	64	69	73	85
Visitors (millions)	4.44	5.85	6.75	8.12	9.47

Source: Forestry Department

the United States. Japanese and Singaporean clients also frequent the tours. The typical jungle trekker is 20-35 years old, loves adventure and uncommon experiences, plans and arranges his or her own trip, and has low purchasing power. On average, there are about 100 jungle trekking tourists daily year round.

Beach Tourism

Thailand is endowed with more than 2,000 kilometers of coastal line along the Siam Gulf and Andaman Sea. The coastline provides a wealth of tourism potential as it is full of beautiful beaches that are competitive with other world famous beach resorts.

Pattaya was the first of Thailand's beaches to be promoted aggressively. Because of its beauty and fame, the number of tourists visiting the beach has dramatically increased from a few hundred to several million annually. The small fishing village, therefore, has been gradually transformed into a large city. This also has changed the type of tourism at Pattaya. Once a nature tourism beach, it now caters to mass tourism. Two or three other beach resorts in Thailand also are following the path of Pattaya, switching from a nature-oriented atmosphere to mass appeal.

Excluding Pattaya and a few other developed beach resorts, there are a great number of beaches on the eastern and southern coasts which better match the definition of nature tourism. Several beaches of this type exist in Krabi, Trang, Chumphon, and Trat Provinces. These beaches are now explored and enjoyed by "back-pack" tourists who need only limited facilities. Such tourists tend to be 25-35 years old, mostly coming from the same countries as the jungle-trekking tourists. In fact, many come to relax on these beaches after finishing their jungle trekking journeys. Activities of beach tourists are rather passive-oriented like swimming, sun-bathing, reading, or exploring nearby local villages. They usually spend 10-15 days on the beach, which is much longer than the average length of stay for the industry as a whole.

National Park Tourism

As stated earlier, domestic tourists have different interests and behaviors than foreign visitors to Thailand. It is very rare for Thai tourists to go on jungle trekking tours. Natural, beautiful beaches with limited facilities and thatch-roofed bungalows are ideal attractions for Thai tourists, but they tend to stay for only one to two days during weekends.

An attitude survey of Thai tourists done in 1983, showed that most (59.20 percent) prefer visiting natural attractions to cultural, historical, archaeological, or entertainment places. Obviously, this has beneficial implications for nature tourism planners since it shows that there is a definite market for nature activities among domestic tourists.

As a result, national parks may be suitable attractions for many domestic tourists. The number of national parks in Thailand has increased yearly from 58 in 1986 to 85 in 1990. Approximately six to seven new national parks are declared by the Forestry Department annually. The number of national park visitors also has increased from only 4.44 million in 1986 to 9.47 million in 1990, or a growth of more than 1 million per year (Table 8).

About 90 percent of national park visitors are Thai tourists, most of which are students 15-25 years old. They usually travel in large groups during summer vacation or long holidays. In keeping with other domestic tourist trends, a large share of Thai visitors take one-day excursions while the rest spend only one to two days at the national parks.

ECONOMIC AND SOCIAL IMPACTS

Earnings

Tourism plays a vital role in Thailand's economy. It has been the country's largest foreign currency earner since 1982, exceeding other major export products like

**Table 9: Comparison of tourism revenues with overall economy
(Million US \$)**

	1989	1990
GNP (A)	68,423.3	80,641.6
Exports (B)	19,847.0	23,483.0
Service Receipts (C)	7,111.3	8,695.6
Tourism Revenues (T)	3,753.0	4,382.0
Share of (T)/(A)	5.5%	5.4%
Share of (T)/(B)	18.9%	19.0%
Share of (T)/(C)	52.8%	50.4%

Source: National Statistical Office, Bank of Thailand

Table 10: Average tourist expenditures per day per person

	1987	1988	1989	1990
Average expenditure (US \$):	92.18	103.91	102.28	115.63

rice, sugar, tapioca, textiles, and computers and parts. Tourism's share in the total service sector's receipts is around 50 percent, and it contributes more than 5 percent to the GNP (Table 9).

Employment

According to a recent study, employment generated by the tourism industry in 1991, was estimated to be around 870,000 jobs. This figure counts full-time jobs only. If all part-time, seasonal, and indirect employment related to tourism is also considered, the number would be much higher. Analyzing the primary sources of tourism provides a closer look at how employment is generated.

Jungle trekking generates only limited direct employment since it usually involves only the tour operators and guides. This business is regarded as more low-investment than other types of business. Advanced education or training is not necessary, and many of the personnel involved have only finished primary school. In the Chiang Mai province, where most of the jungle tour programs originate, about 50 of the 140 tour operator entrepreneurs are selling programs. Additional job creation is minimized since supplies are carried in on treks and there is little need to purchase items once on the trail.

Beach tourism, meanwhile, has created more employment than jungle tourism as it is more extensive. The principal people involved include the investors in bungalow properties and restaurants, and their employees. However, spin-off jobs are created as tourists at beach areas are more apt to spend money on crafts and social activities, etc. This creates a demand for numerous small businesses in beach areas not found on trekking routes. Most entrepreneurs at beach areas are local people who enter the tourism business with limited capital investment.

Tourist Expenditures

The average tourist visiting Thailand in 1990 spent US \$115.63 per day. This figure has been steadily increasing over the past few years as shown in Table 10 and is expected to continue on an upward trend.

The expenditures of visitors can be classified into six major categories. Shopping and accommodation are the primary expenses as tourists spend over half of their total expenditures on these two items.

Expenditures for nature tourism differ from mass tourism. For example, the price of jungle tour programs (which are sold as a package including food, accommodation, and tour guides) is generally between

Table 11: Percentage of international tourists' expenditures, 1990

Category	Percentage
Shopping	38.83
Accommodation	23.35
Food and Drink	15.07
Local Transportation	13.25
Entertainment	7.61
Miscellaneous	1.88
Total	100.00

US\$32-120. The price varies according to the distance, time, difficulties of the route, and other options of the program. On average, jungle tour clients pay about US\$40 per day.

For beach tourism, tourists pay for cheap bungalows which range from US\$10-40 per day. Expenditures for food and other personal necessities are the same price paid by local residents, which is much lower than what city tourists pay. Consequently, tourists at the beaches and jungle tours spend less per day than urban tourists. The lack of opportunities to spend money on trek routes, and cheaper prices associated with beach tourism, means that small businesses bring in less revenue than urban businesses with higher demands and higher prices. It is estimated that nature tourists' expenditures are only one-third to one-half of the general tourists' daily average expenditures.

Gain and Disruption

Tourism, particularly nature tourism, has many positive and negative social impacts. Some of the positive impacts include:

- **New enterprises being developed**

Entrepreneurs who own land along beautiful, quiet beaches can enter the tourism business as newcomers. They may start by investing in a few modest bungalows and enlarge their business later when they understand the industry. This provides local land-owners in resource-rich areas an opportunity to enter non-traditional markets.

- **Job creation**

Tourism is another source of job creation for local residents. For example, the local residents in the north, some of whom are hilltribe villagers, can earn their living as jungle tour guides. This is a job which

generates a much higher income than other local occupations. People in the south also can work as employees for the tourist industry at local resorts with no need to migrate elsewhere to seek jobs.

- **Stronger awareness of nature conservation**

Rural people who live their daily lives amidst natural surroundings may over look the need to conserve nature. However, nature tourism may help create a stronger understanding of nature's importance to their livelihood and more awareness of the necessity of nature conservation.

Still, many negative impacts also are generated by tourism, including:

- **Land price increases**

Beach tourism fuels increased land speculation, which benefits no one but speculators. The local land-owners are induced to sell their land to outsiders instead of initiating their own nature tourism businesses. The investors also are pressed to build deluxe properties, or high-rise buildings to offset the high prices they pay. Eventually, this phenomenon indirectly leads to forest encroachment and unscrupulous land acquisition.

- **Higher cost of living**

The tourism business produces higher revenues than other occupations. Tourists and local people involved with tourism sometimes have higher purchasing power than other villagers. As the number of tourists increases so does the cost of living. Therefore, those who do not earn their living from tourism have to shoulder an inflated cost of living.

- **Changes of social values**

When the traffic of tourists penetrates remote rural

villages, existing social values of the villagers are often challenged and changed. Younger generations are particularly vulnerable to outside influences. For instance, hilltribe villages had the reputation of being generous to each other and treating visitors like family. Recently, however, they have been influenced by profits from tourism and have turned to be more commercial- and materialist-minded.

MAIN CONSTRAINTS ON NATURE TOURISM

Conflicts

As the number of tourists visiting Thailand increases annually, nature tourism areas will gradually be developed and urbanized. Economy-minded, adventure-seeking tourists who now pioneer tourist destinations, will need to look for other remote and unknown natural places to visit. If the current trend is not checked, their present asylums will be gradually transformed into towns or cities to meet the demands of mass tourism.

Beach tourism is especially vulnerable to changing economic conditions. The beautiful, but easily accessible beaches, which are paradise for nature tourists who stay in inexpensive bungalows, risk being taken over by multi-story hotels or high-rise condominiums established to serve mass tourists who are able to spend more.

Jungle trekking tourism also is wrought with conflict. Hilltribe villages are the most interesting component of this kind of tourism, although the scenery and wild flora and fauna along the trails also are important. Tourists buy this "product" only if they can see, or spend the night in primitive and authentic hilltribe villages which usually are remote, underdeveloped, and poor. Yet it is a national policy to eradicate poverty in the country. Hilltribe villages are among the target groups which the government aims to improve. If successful, the appearance of the villages will lose much of their appeal from a tourism perspective.

Constraints

The major constraints of tourism in general are:

- **Shortage of public utilities and infrastructure**

Over the past few years, Thailand's tourism industry has developed extensively along with the country's economy. However, development has not necessarily occurred at equal paces. The private sector has invested in a great number of projects ranging from

hotels, resorts, restaurants, and other related businesses catering to tourists at major destinations. Yet the government has invested in public utilities and infrastructure at a much slower pace. Some destinations do not have waste-water treatment systems while some others cannot cope with the rising demands for fresh water and proper garbage disposal facilities.

- **Environmental degradation**

As the number of tourists visiting Thailand has steadily and rapidly increased, the environment of major destinations is greatly affected. The problems are more acute when public utilities at the destination are insufficient. Over-use without proper control of tourist attractions will be the prime constraint for Thailand's future tourism development.

- **Bangkok's traffic congestion**

Bangkok is extremely congested and unfortunately, the problem will not easily be solved in the near future. Bangkok's traffic snarls are regarded as a constraint for tourism as they discourage tourists from choosing Thailand as their destination.

ROLES OF DIFFERENT SECTORS

Role of Government

As Thailand is heading toward mass-tourism, the role of government in protecting and enhancing nature tourism is quite important. However, there are several limitations including the fact that the government has no clear policy and lacks control measures.

Currently, there is no clear-cut policy for nature tourism in Thailand. The government does not have a definite plan or direction to deal with nature tourism separately, particularly from a development aspect. Nature tourism is being promoted, but no comprehensive policies have been developed. The answers to the questions of what should be conserved and why still cannot be found in government policy.

Thailand also has no method to protect itself from too much tourism. Although the tourism industry in Thailand has grown rapidly and is now at a mature stage, there are no direct legal measures to control businesses and investment related to the industry. At present, other relevant laws and regulations, e.g. Building Control Act, Hotel Operation License, or Public Health Act--all of which are promulgated for other purposes--are borrowed to control or divert undesirable development. As a consequence, supervision or management of the tourism industry cannot be effectively carried out as needed.

Role of Private Sector

The private sector has played the most important role in developing Thailand's tourism industry because all enterprises and tourism businesses are operated by the private sector. The biggest problems involving the private sector relate to the quality of services provided and the attitude of investors.

The quality of services for nature tourism lags far behind mass tourism's services. Some jungle tour guides care only for their own profits, offering illegal drugs or prostitutes to their clients during the tour instead of improving their poor service. Still others do not cooperate in carrying out safety recommendations issued by government officials for tourists. This has strong implications for the nature tourism market since unfavorable impressions can influence how a destination is perceived by other potential visitors.

Attitudes of local investors further hinders the ability to provide quality services since they have the understanding that high-standard tourist facilities do not go along with nature conservation. The interpretation of "developed tourism" from the point of view of local investors seems different from the academic or professional sense. Because of their limited capital, local investors often start a business by constructing bungalows made of wood and local materials available with slight disturbances to natural surroundings. Yet when their positions are strengthened, investors tend to upgrade bungalow units, or turn to hotels built in concrete urban-styled architecture. The surrounding area is redesigned in a public park style, getting away from the natural landscape. This attitude of local investors, if unchanged, will gradually turn nature tourism into urbanized mass-tourism.

Role of National Parks

The only protected areas for nature tourism in Thailand are the national parks under the jurisdiction of the Forestry Department. Under the Forestry Department, the National Parks Division is the direct official body which supervises the 85 national parks. This number may be the highest in the world for one country. Yet there are several major limitations hindering sustainable nature tourism at parks. These include:

- **Carrying capacity**

Several of the 85 national parks are famous for their beauty and are very popular with tourists. This is particularly true for the marine national parks in the south, where both international and domestic tourists visit in great number. As a result, national parks with plenty of natural resources, but poorly equipped facilities are facing an influx of visitors, especially during long holidays in peak seasons. The volume of tourists

seems much higher than many national parks' carrying capacity, although, there still is no effective monitoring of visitor numbers or attempts to balance visitor numbers with peak carrying capacities.

- **Inadequate management resources**

To protect the national parks effectively, either for the sake of conservation or tourism, management resources including personnel and equipment have to be significantly increased. This is particularly important for popular national parks which currently lack many supporting factors.

- **Policy**

The Forestry Department has placed the protection and conservation of natural resources in national parks as its highest priority. All tasks related to tourism are viewed as tertiary in importance. At present, the provision of tourism services (restaurants or accommodations, etc.) are undertaken by forestry officials or employees. These types of services can best be run by the private sector allowing the Forestry Department to devote more resources to first and second priority issues. However, currently there is no policy for the department to allocate tourism-related tasks through permits or concessions.

DEVELOPMENT ASSISTANCE IN NATURE TOURISM

Nature tourism is a relatively new concept in Thailand. The understanding of nature tourism seems to vary by individual and the line dividing mass and nature tourism is controversial and hard to draw. Therefore, development assistance for nature tourism in Thailand should include the following:

- **Nation-wide seminar on nature tourism**

To develop consensus on the direction of nature tourism development in Thailand, including priorities for investment and training, a nation-wide seminar needs to be organized. This should include government officials, interested business persons and investors, NGOs, and academicians. Good and bad examples from other countries, the positive and negative impacts of nature tourism versus mass tourism, and recommendations on how nature tourism and mass tourism can coexist and supplement each other need to be presented at the seminar. The documents and results from the seminar should be publicized for those who cannot attend.

- **Nature tourism planning**

Currently, there is no master plan for nature tourism in Thailand. National planning on nature tourism is

needed to explicitly respond to the question of what should be conserved for nature tourism, why, and how. Assistance from international donors would be helpful in carrying out a detailed pilot study which would provide the necessary information on the impacts of nature tourism.

- **Site planning for national parks**

Although there are several hundred thousand tourists visiting national parks each year, most of these parks still do not have definite site plans. Decisions to construct buildings and other infrastructure are made more on the basis of available budget resources than objective needs assessments. Both technical and financial assistance for site planning of national parks is urgently needed to ensure the sustainability of the parks.

CONCLUSION

From a nature tourism perspective, Thailand is endowed with many key elements that guarantee a promising future. Beautiful beaches, exotic jungles, and a vast national park system provide a variety of natural resources for tourists to visit. Thailand is also fortunate to have two distinct markets that appreciate nature tourism. Both domestic and international tourists are already enjoying Thailand's resources in large numbers. The combination of a growing tourist market and a wealth of resources make Thailand ideal for the expansion of the nature tourism industry.

However, it is important to look at the negative impacts of continued increased tourism in fragile areas. This includes nature tourism. Monitoring of tourism growth is essential if the trend towards urbanization of tourist areas is to be averted. Examples of once-natural sites like Pattaya should be sufficient to show tourism policy makers the danger to natural areas if tourism growth is left unchecked.

Nature tourism depends on conservation of natural resources and cultures--resources that are often destroyed or damaged by traditional growth. If nature tourism is to succeed in Thailand, it is this conflict that must be resolved.

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NATURE TOURISM PROFILE: INDONESIA

Abdon Nababan and Arief Aliadi

INTRODUCTION

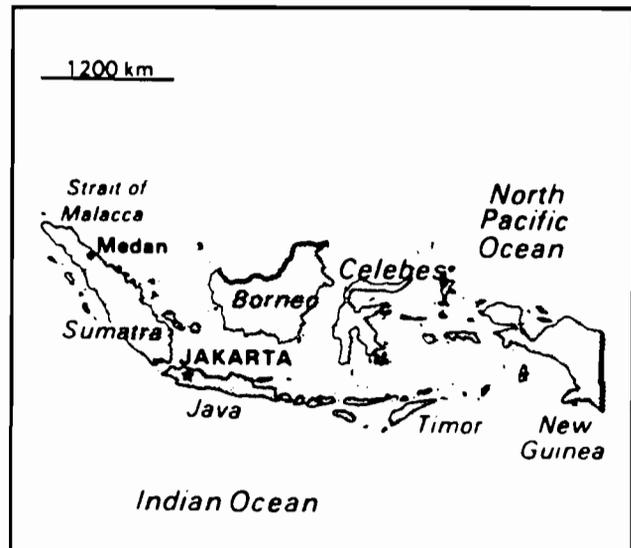
In recent years, there has been increasing appreciation from the international community for nature tourism or "ecotourism" as it is also called. Driven by the eagerness of tourists to experience adventure in a natural setting, nature tourism is developing globally into a billion dollar business. For Indonesia, with its natural tropical richness and beauty, nature tourism is potentially very important for national economic development and nature conservation.

Geographic Features

Indonesia, which lies between two continents (Asia and Australia) and two oceans (Indian and Pacific), is comprised of 13,667 islands, only 7 percent of which are inhabited. It covers an area of 9.8 million square kilometers with a sea area of 7.9 million square kilometers (81 percent). This leaves a landmass of a little more than 1.9 million square kilometers (19 percent). Indonesia has 218 volcanoes, 221 large rivers, and 18 large lakes. Its natural resources and landscapes range from the depths of the Banda Sea to one of the very few tropical glacier mountains in Irian Jaya. All are potential wealth for nature tourism.

Two-thirds of the Indonesian landmass, or 143 million hectares, are classified as forest land, with 113 million hectares classified as permanent forest (divided into 30.3 million hectares of protected forest, 18.7 million hectares of conservation forest, and 64 million hectares of production forest). There are 18 different forest types and 12 habitat types, varying from lowland tropical rainforests to seasonal monsoon forests, and from savanna grasslands to alpine forests.

Even though Indonesia only covers 1.3 percent of the earth's landmass, it harbors 25,000 species of flowering plants (10 percent of the entire flowering plant species). Indonesia also has 500 mammalian species (12 percent of earth's mammals), 3,000 species of reptiles and amphibians (16 percent), 1,600 bird species (17 percent), 8,500 species of fishes (more than 25 percent), 121 species of forktail butterflies (the largest in the world), and many other unknown biota. Furthermore, Indonesia has 663 of the world's endemic or rare species such as the komodo in the Lesser Sunda Islands (Komodo island), the anoa (dwarf buffalo) and



Central Intelligence Agency, *The World Factbook* 1991.

the babyrousa in Sulawesi, the proboscis monkey in Kalimantan, the endangered Bali starling, and the Javan rhino in the Ujung Kulon National Park. With such biodiversity and such high endemic value, Indonesia is recognized as one of the biodiversity centers in the world. To date, Indonesia offers nature tourism attractions at its 24 national parks (ten of which are intensively managed under Technical Management Unit and three of which are adopted by IUCN as the World Heritage Sites), 63 recreational forests, and four grand forest parks.

Indonesia also offers competitive marine tourism attractions. The islands are full of many aquatic wonders including coastal habitats with the most extensive mangroves in Asia. Indonesia's coastline offers large, white sand beaches and amazing coral reefs with a large number of beautiful fishes, mollusks, and extensive sea weeds. Such natural resources are found in many parts of the archipelago including the islands of Taka Bonerate in the Flores Sea (one of the world's biggest atoll), the Tukang Besi islands, Bunaken Marine Park in North Sulawesi, and many others.

Indonesia's location on the rim of the Pacific tectonic plate explains the extraordinary number of active or

Table 1: Visitor arrivals to Indonesia by purpose of visit, 1990

Purpose	Total	Percentage
Business	283,604	13.0
Official	15,501	0.7
Convention	10,155	0.5
Holiday	1,767,027	81.1
Education	3,889	0.2
Others	47,341	2.2
Not Stated	50,049	2.3
Total	2,177,566	100.0

Source: Directorate General of Tourism, 1990

Table 2: Tourist arrivals to Indonesia by country of residence, average length of stay, and average expenditure per visit, 1990

Country of Residence	Number of Tourists	Average Length of Stay (days)	Average Expenditure (US \$)	Revenue (mn US \$)
Brunei	3,771	7.53	857.68	3.23
Malaysia	189,446	6.08	548.83	103.97
Philippines	17,305	9.64	743.72	12.87
Singapore	621,069	3.78	464.69	288.60
Thailand	17,226	7.08	2,099.82	36.17
Hong Kong	49,961	11.86	1,155.08	57.71
India	9,348	6.46	863.00	8.07
Japan	263,398	8.32	1,324.89	348.97
Korea	44,113	7.42	905.58	39.95
Taiwan	119,339	12.12	1,333.94	159.19
France	54,786	20.77	1,081.89	59.27
Germany	87,455	22.33	1,172.57	102.55
Italy	42,034	15.12	1,633.22	68.65
Netherlands	107,609	26.13	1,492.24	160.58
Switzerland	27,045	22.72	1,383.10	37.41
United Kingdom	91,897	14.32	817.99	75.17
Other Europe	7,578	20.32	903.36	6.85
USA	101,399	14.50	1,113.16	112.87
Canada	20,246	20.06	957.08	19.38
Australia	179,483	13.67	1,053.58	189.10
New Zealand	20,488	12.94	919.45	18.84
Others	102,570	9.57	1,082.53	111.04
Total	2,177,566	11.82	966.81	2,105.29

Source: Central Bureau of Statistics, 1990

recently active volcanic features, particularly in Java, Bali, Lombok, Sumbawa, and Sulawesi. Several of these spectacular regions have been declared protected areas either as reserves or national parks. The remains of the well-known Krakatau volcano at Ujung Kulon National Park and the Semeru mountain (the highest peak in Java) at Bromo Tengger National Park are examples. They include huge calderas, multicolored steaming lakes, and puzzling cold mud pots. Because of this type of volcanic activity, Indonesia is known also as a country with a 'ring of fire.'

Throughout Indonesia's extensive mountain ranges, the most spectacular are found in Irian Jaya, in the Jayawijaya mountain range. With an altitude of 4,884 meters above sea level, Puncak Jaya is the highest summit in Southeast Asia. It is also the home of an equatorial glacier which can be found in only two other places worldwide. Indonesia's additional natural landscapes offer uniqueness as well, such as waterfalls, caves, lakes, hot springs, and other natural beauty.

Apart from the attractive scenery and rich biodiversity, Indonesia has hundreds of sub-ethnic groups who possess colorful life-styles and rich cultural heritages. The different cultures in Indonesia provide various tourism attractions through music, traditional dances, customary and religious ceremonies, artifacts, and handicrafts.

Data And Definition

Data on tourism used in this profile was primarily collected and published by the Directorate General of Tourism, and the Ministry of Tourism, Posts, and Telecommunication. Additional data was obtained from the Central Bureau of Statistics, the Directorate General of Forest Protection and Nature Conservation of the Ministry of Forestry, and the Institute for Indonesia Tourism Studies. Information regarding the hotel industry was provided by the Indonesian Hotel and Restaurant Association, and the Directorate General of Tourism. Official data specifically on nature tourism is often insufficient because this sector is quite new. Until recently, the Directorate General of Tourism did not have statistics on nature tourists.

The nature tourist, in this case, is defined as a person who visits areas of natural or ecological significance. They usually stay for more than 24 hours or at least overnight and are divided into categories of domestic and international tourists. Due to limited data on domestic tourists, this survey will deal more with international tourists. Nature tourism attractions are generally found inside protected areas, consequently data and information sources are from the Directorate General of Forest Protection and Nature Conservation.

TOURIST CHARACTERISTICS

International Tourists

Indonesia has been fortunate to experience increasing growths in international tourism. In 1990, the number of international tourists visiting Indonesia was 2 million, a 33.9 percent increase from 1989. The annual increase in tourist arrivals between 1980 and 1990 averaged 14 percent. The majority of international tourists come from the following countries: Singapore (621,069), Japan (263,398), Malaysia (189,446), Australia (179,483), Taiwan (119,339), Netherlands (107,609), United States (101,399), United Kingdom (91,897), and Germany (87,455).

The residence of tourists is important since tourists from different countries tend to focus on different attractions. This is especially true in nature tourism which attracts a large number of American, European, and Australian tourists and to a much lesser extent, nationals from other Asian countries.

Much information about tourist activities in Indonesia comes from a 1990 survey by the Central Bureau of Statistics. According to the survey, more than three-fourths (81.1 percent) of all visitors come to Indonesia for recreation or holiday. The remaining 19.9 percent have other reasons to visit such as business, official missions, attending conventions, etc. (Table 1).

Indonesia's tourists are predominately male (62.8 percent) compared with women (37.2 percent). Tourists between 25-34 years of age comprise the largest age group at 28.6 percent, followed by 35-44 year olds at 25.1 percent. The smallest group of tourists according to age are 64 years and older.

The average length of stay in Indonesia is 11.82 days. Average total expenses during this time is US\$2,105.29 million (Table 2). However, there is a declining trend in the length of stay of 9.6 percent annually between 1984 and 1990.

Survey of International Tourists in Java

Comprehensive data on international tourists visiting nature sites are not available, except for several sites in Java. The following data are from a study of nature recreation in protected areas of Java. The study sites were in Bromo Tengger National Park, Meru Betiri National Park, Ujung Kulon National Park, and Pangandaran Recreation Forest.

Most international tourists come from Western Europe (67.86 percent) with the least coming from Japan (2.14 percent). Although the two are not directly compa-

Table 3: Country of residence of international tourists visiting nature tourist sites, based on age (percent)

Country of Residence	-----Age (years)-----						Total
	<20	20-29	30-39	40-49	50-59	>59	
ASEAN	-	-	-	-	-	-	-
Australia	-	5.71	4.29	1.43	-	-	11.43
Japan	-	0.71	-	1.43	-	-	2.14
North America	-	5.00	6.43	1.43	2.86	-	15.71
Western Europe	1.43	31.43	16.43	14.29	3.57	0.71	67.86
Others	0.71	-	1.43	0.71	-	-	2.86

Source: Prabowo, 1990

Table 4: Percentage of tourist at nature-based sites according to sex and age group, 1990

	-----Age (years)-----						Total
	<20	20-29	30-39	40-49	50-59	>59	
Male	1.43	21.43	18.57	14.29	4.29	-	60.00
Female	0.71	21.43	10.00	5.00	2.14	0.71	40.00
Total	2.14	42.86	28.57	19.29	6.43	0.71	100.00

Source: Prabowo, 1990

table, the numbers do show the popularity of nature tourism with Europeans compared to Asians (Table 3).

Most international tourists surveyed are men (60 percent), primarily in the 20-29 age range. The percentage of women in the 20-29 age group is equal to men, although women make up a smaller percentage of the total number of tourists (Table 4). The percentage of women as tourists in Indonesia significantly drops off after the age 30.

The majority of international tourists (70 percent) stay at natural sites for two to four days. Only 17.86 percent of tourists visit natural attractions for more than four days. The remaining 12.14 percent take very short visits (1 day).

When choosing locations to visit, more than half (54.29 percent) of international tourists choose terrestrial sites. The remaining divide their time accordingly: 15.71 percent visit both terrestrial and aquatic sites; 12.14 percent visit aquatic sites; and 17.86 percent choose sites with areas such as local culture, peaceful locations, and scenic views. The most popular nature

tourism activities are trekking and hiking (identified as the preferred activity by 45 percent of those surveyed), sightseeing (24 percent), and swimming (9 percent) (Table 5).

Domestic Tourists

Domestic tourism is overshadowed by international tourism because of the different nature of domestic travel. Data on domestic tourists visiting nature oriented sites are extremely limited. Data presented below are from a 1984 survey of domestic travellers which included surveys of visitors to nature sites.

The survey shows Indonesian tourists totaling 14 million--not an insignificant number. Of the total, 61 percent (8 million) of domestic tourists are men and 39 percent (5 million) are women. Men under the age of 25 total 3.8 million, while women of the same age total 3 million.

Thirty-five percent of domestic tourists come from urban areas (5 million), with 65 percent (9 million) coming from rural areas. Inhabitants of West Java are

Table 5: Nature-based activities as first choice, according to the country of origin (percent)

Activity	-----Country of Residence*-----						Total
	1	2	3	4	5	6	
Swimming	-	0.71	-	2.14	6.43	-	9.29
Boating /Surfing	-	1.43	-	-	-	-	1.43
Sun bathing	-	-	1.43	-	3.57	-	5.00
Cross country	-	5.00	0.71	9.29	28.57	1.43	45.00
Sightseeing	-	5.00	-	3.57	14.29	1.43	24.29
Wildlife attraction	-	-	-	-	7.86	-	7.86
Mountain climbing	-	-	-	-	1.43	-	1.43
Photography	-	-	-	-	0.71	-	0.71
Others	-	0.71	-	0.71	3.57	-	5.00
Total	-	12.85	2.14	15.71	66.43	2.86	100.0

Source: Prabowo, 1990

* Note: 1. ASEAN countries 2. Australia 3. Japan 4. United States 5. Western Europe 6. Others

Table 6: Number of visits by domestic tourists to nature tourism sites, within 3 months in 1984

Tourism sites	Number of visits (million)	Percentage of total travellers
Beach	3.0	7.9
Recreation Forest	0.8	2.3
Lake	0.5	1.3
National Park	0.2	0.6
Cave	0.2	0.5
Marine park	0.1	0.2
Total	4.8	12.8

Source: Central Bureau of Statistics, 1990

the most frequent travellers at 3 million (25.8 percent), followed by East Javan residents at 2 million (19.5 percent), and Central Java at 1 million (11.6 percent).

Domestic tourism also differs from international tourism in the sites that are visited. Only 41 percent of urban inhabitants visit tourist sites as part of their domestic travel. The number of rural inhabitants visiting tourist's sites is smaller at 30 percent. The number of domestic tourists visiting nature-oriented sites during a 3 month period in 1984 was even smaller, at 12.8 percent of total travellers (Table 6). The majority of domestic travel is for other purposes such as trading, visiting relatives or acquaintances, etc.

Additional data from 1984 indicates that the number of visits by Indonesians within 6 months was as many as

37.3 million. Of these visits, 37.5 percent (14 million) were to tourist sites and the rest (62.5 percent, or 23.3 million) were to non-tourist sites. The most popular tourist sites were beaches, recreation parks, historical sites, and zoos (Table 7).

Tourist Expenditures

The trend through the second half of the 1980's has been for international tourists to spend more money. In 1984, the average expenditure per person per visit to Indonesia was US \$706. In four years, it increased 11.6 percent to US \$790. Furthermore, international tourist expenditures continued to grow, to US \$996 in 1990--an increase of as much as 26.1 percent from 1988 (Table 8). This is despite the fact that the average length of stay during the same period declined by 9.53 percent.

Table 7: Tourist sites visited by domestic tourists within 6 months in 1984

Tourist sites	Number of visits (millions)
Beach	3.0
Recreation park	1.7
Historical site	1.7
Zoo	1.1
Traditional ceremony	0.9
Recreation forest	0.8
Lake	0.5
Dam	0.3
Camping ground	0.2
National park	0.2
Cave	0.2
Performing art	0.2
Museum	0.2
Cultural park	0.1
Marine park	0.1
Other tourist sites	2.9

Source: Central Bureau of Statistics, 1990

Table 8: Average foreign exchange earnings per tourist and per day 1984, 1988, and 1990

	1984	1988	1990	% Growth (1986-1990)
Average Expenditure per Person per Visit (US \$)	706.68	790.00	996.81	18.85
Average Length of Stay (Days)	14.71	11.55	11.82	-9.59
Average Expenditure per Person per Day (US \$)	48.04	68.39	84.33	32.84

Source: Central Bureau of Statistics, 1990

Table 9: Percentage of expenditures of international tourists in Indonesia according to items of expense

	Total
Accommodations	30.8
Sightseeing	7.0
Local transportation	10.8
Food and beverage	17.4
Entertainment	6.3
Souvenirs	20.0
Others	7.7

Source: Central Bureau of Statistics, 1990

Accommodations comprise the greatest portion of total tourist expenditures at 30.8 percent. Expenditures for souvenirs and food and beverages are next averaging from 20 percent to 17.4 percent respectively (Table 9).

It is estimated that 11 percent of the total tourist expenditures (US \$2 million) leave Indonesia through foreign currency leakage (Sigit 1990). Sources of leakage are the importation of food and beverage, cost of promotion abroad, contracts with expatriate workers, air transportation, entertainment, recreation, textile and other manufactured products, etc. The large number of leakages makes the degree of leakage hard to determine. H. Kodhyat, director of the Institute of Indonesia Tourist Studies, estimates foreign currency leakage to be as much as 50 percent.

TOURISM AND THE ECONOMY

The increasing number of international tourists visiting Indonesia has positive impacts on the national economy, either through foreign exchange earnings or

employment creation. From the 1.6 million visitors in 1989, Indonesia earned US \$1,284.5 million. Based on data from 1970 to 1989, the average annual growth rate of foreign exchange earnings from the tourism sector is 27.5 percent. This is larger than the annual growth rate of international tourist which is around 14.6 percent (Table 10). There was a decline in the number of international tourists in 1982 probably caused by the economic recession of the early 1980's. However, it did not affect foreign exchange earnings which increased during the same time period.

In 1984-1985, tourism was the seventh largest contributor to foreign exchange earnings. In 1987 and 1988, tourism replaced coffee as the sixth largest contributor of foreign exchange earnings (Table 11). Earnings from tourism bring in much needed foreign currency which helps offset deficits created by interest payments for foreign loans and Indonesians travelling abroad.

Employment Generation

Employment in the accommodations sub-sector of

Table 10: The growth of tourist arrivals in Indonesia and gross foreign exchange earnings from tourism, 1970-1990

Year	Total	% Growth	Foreign Exchange (million US\$)	% Growth
1970	129,319	50.2	16.2	-
1971	178,781	38.3	22.6	39.5
1972	221,195	23.7	27.6	22.1
1973	270,303	22.2	33.8	22.5
1974	313,452	16.0	54.4	60.9
1975	366,293	16.9	62.3	14.5
1976	401,237	9.5	70.6	13.3
1977	433,393	8.0	81.3	15.2
1978	468,614	8.1	94.3	16.0
1979	501,430	7.0	188.0	99.4
1980	561,178	11.9	289.0	73.7
1981	600,151	6.9	309.1	7.0
1982	592,046	(1.3)	358.8	16.1
1983	638,855	7.9	439.5	22.5
1984	700,910	9.7	519.7	18.3
1985	749,351	6.9	525.3	1.1
1986	825,035	10.1	590.5	12.4
1987	1,060,347	28.5	874.3	48.1
1988	1,301,049	22.7	1,027.0	17.5
1989	1,625,965	25.0	1,284.5	25.1
1990	2,177,566	33.9	-	-
Average Growth		14.6		27.5

Source: Directorate General of Tourism

Table 11: Tourism revenues compared to other leading foreign exchange earners for Indonesia, 1984 - 1988 (million US\$)

	1984	1985	1986	1987	1988
1. Oil	12,477	9,083	5,501	6,156	5,189
2. Gas	3,541	3,643	2,795	2,339	2,493
3. Wood	1,166	1,193	1,420	2,338	2,884
4. Rubber	954	683	725	987	1,295
5. Coffee	565	556	818	535	550
6. Tourism	519	525	590	847	1,027
		(6th)	(7th)	(6th)	(6th)
7. Textiles	-	559	797	1,797	1,428

Source: Directorate General of Tourism, 1990

tourism is currently estimated to be to be 990,698 jobs (Central Bureau of Statistics 1989). This is divided accordingly: 83 percent at the basic level (unskilled and semi-skilled), 10.9 percent at the middle level, and 6.1 percent at the top level. The Directorate General of Tourism estimates that the overall number of personnel involved in tourism (direct and indirect) in 1988 was approximately 1.3 million.

Investments

Between 1984 and August 1989, US\$1,078 million from foreign investors and Rp. 2,566 billion (about US\$1,425 million) from domestic investors was invested in 345 tourism projects in Indonesia (Table 12). Most of those investments were used for establishing luxury star hotels and tourist resorts. Such capital-intensive investments are expected to have multiplier effects for economic activities in other sectors. However, high foreign investment will potentially have negative impacts in the form of dependence on developed countries. Furthermore, outside investment allows for increased foreign exchange leakage. Deregulation and debureaucratization efforts now underway will likely stimulate increased investments (foreign and domestic) in the tourism industry.

Contribution of Nature Tourism

The contribution of nature tourism to foreign exchange earnings and employment creation cannot yet be specified because data on this subject are not available. However, it can be assumed that the contribution is not small considering that Indonesian tourism attractions are based mainly on the richness and diversity of its natural resources. Furthermore, given the rising appreciation for nature tourism, this industry should continue to grow.

In properly managed and sustainable nature tourism, the key is to promote the income of people surrounding the tourist sites and develop economic activities in isolated areas while maintaining the surrounding natural resources. Investment in this sector should be directed toward integrating the efforts of government, private entrepreneurs, and local communities in an environmentally sensitive manner. Appropriate accommodations for the sites should be motels, cottages, and other small lodging types, instead of five-star hotels. They should be run by local communities with advice from government agencies or skilled private institutions when needed. Nature tourism must maintain different management styles to prevent mass tourism from taking over and defeating the purpose of alternative tourism.

ENVIRONMENTAL IMPACT OF TOURISM

As seen throughout the years, tourism development often over-exploits the environment. Development of infrastructure frequently spoils the natural beauty of the area and sometimes destroys ecological systems. This causes a variety of problems as areas are often left with lasting damage in exchange for short-term profits. In Indonesia, tourism development has been particularly damaging to the coral reefs and their environment.

For example, in several coastal areas of Bali and many of the other islands of Indonesia, accommodation facilities were developed on the coastline. This development damaged coral reef habitats which in turn destroyed coastal habitats. Coral reef damage is clearly evident in the Seribu Islands (north of Jakarta), Anyer beach, and the Pangandaran-Pananjung Nature Re-

Table 12: Number of projects and investment planning in tourism sector for Indonesia, 1984-1989

	Number of Projects	Investment	
		Foreign (Million US\$)	Domestic (Million Rp)
Accommodations / hotels	227	1,012.13	1,157,429.68
Sea tourism	15	9.41	65,462.30
Recreation services	56	50.75	292,671.91
Restaurants / catering	16	-	24,334.16
Travel bureaus	31	6.35	15,016.59
Total	345	1,078.64	2,566,439.04

Source: Directorate General of Tourism, 1990

serve (both in West Java). Much of the destruction is caused by coral 'mining' for souvenirs for visitors. Still worse, coral is often used as foundation stone for lodging facilities. Kelor Island of the Seribu Islands no longer has reefs because coral was either stolen or destroyed. The island is now exposed to heavy waves and other ecological problems.

INFRASTRUCTURE

Accommodations

According to a 1990 study, Indonesia has 432 hotels with 35,929 rooms. By comparison, there are 4,372 *Melati* (non-star) hotels with 78,204 rooms. Furthermore, there are 524 cottages (2,447 rooms) scattered across nine provinces: Aceh, North Sumatera, West Sumatera, Bengkulu, Lampung, Yogyakarta, East Java, Bali, and West Kalimantan. There are also 39 youth hostels (635 rooms) in the provinces of Aceh, North Sumatera, West Sumatera, Jakarta, West Java, Central Java, Yogyakarta, East Java, Bali, and South Sulawesi.

Indonesia has 76 camp grounds which can accommodate 199,297 persons. The campgrounds are located on 11 provinces: Aceh, North Sumatera, West Sumatera, South Sumatera, Bengkulu, Jakarta, West Java, Central Java, Yogyakarta, Bali, and East Kalimantan.

Organization

Tourism development in Indonesia is the responsibility of the government through the Directorate General of Tourism and the Ministry of Tourism, Posts, and Telecommunication. For nature tourism development, the government cooperates with the Directorate General of Forest Protection and Nature Conservation.

The private sector has also formed tourism associations such as Association of Indonesian Travel Agents

(ASITA), Indonesian Hotel and Restaurant Association (IHRA/PHRI), and the Indonesian Recreation Park Association (PUTRI). Recently, a new organization specifically focused on nature tourism development was established--the Association of Nature and Wildlife Tourism of the Republic of Indonesia (Wisatwari)--which emphasizes hunting activities.

GOVERNMENT POLICY IN TOURISM

Development and Management of Tourism

As part of tourism policy, the government of Indonesia has developed the following goals for growth and management of tourism:

- to accelerate the growth of local tourism;
- to increase the efficiency and effectiveness of fund usage;
- to attract investors; and
- to enhance the impact and benefit of tourism development.

To reach those goals, the following points should be considered:

- existing foreign currency sources;
- tourism as a means of attracting economic development;
- creation of new employment;
- tourism as a means of spreading development activities to non-industrial areas; and
- broadening knowledge of and developing under-

standing of Indonesia's natural resources among citizens (for domestic tourists) and among nations (international tourists).

Policy on the Development of Nature Tourism

In 1990, the Indonesian government issued Act No. 5/1990 on the Conservation of Biological Resources and Their Ecosystems. This basic law on Indonesian nature conservation provides room for the development of the nature tourism industry in protected areas.

Development of this new sector is intended to give local people additional opportunities to sustainably use forest resources. Nature-oriented recreation and tourism is being encouraged to enhance natural resources conservation as well as to stimulate local economic growth.

The goals of the Directorate General of Forest Protection and Nature Conservation for nature tourism development are as follows:

- to encourage conservation efforts at nature-oriented tourist sites and the surrounding environment in order to ensure the sustainability of site attractions;
- to use optimally the typical and unique potentials of each site as tourism attractions;
- to support development equity and promote employment in addition to business opportunities; and
- to advance national cultural values in the international community and to counter current negative impressions about tropical forest management in Indonesia.

The utilization of natural resources in the development of nature tourism should be based on the following principles:

- the maintenance of essential ecological processes and life-support systems;
- preservation of genetic diversity; and
- sustainable utilization of species and ecosystems.

The development of nature tourism has to ensure tourist satisfaction in making the best of natural resource potential and its environmental systems. Sites used for nature tourism should stimulate the social and economic growth of local communities, increase business opportunities, and contribute to the forestry sector.

To enhance the appreciation for nature, public awareness must be developed as well as participation in

conservation measures. Through extension, guidance, and education, people's activities can be synchronized with conservation efforts.

Furthermore, successful development of nature tourism has to be integrated into development planning at the regional and central levels. One example of such integration is the cooperation of the Directorate General of Tourism and the Directorate General of Forest Protection and Nature Conservation in creating the Joint Committee on Nature Attraction Utilization. This occurred with the issuance of a of the Joint Decree from the Minister of Forestry and the Minister of Tourism, Posts, and Telecommunication.

Finally, to encourage private sector involvement in developing nature tourism, the government has established a policy of granting concessions to private companies for developing facilities in and around a protected area--on the condition that local people are allowed to participate. Private companies have applied for 26 concessions thus far. They are as follows: 15 at recreation forests, 8 at national parks, and 3 at grand forest parks.

OPPORTUNITY AND CONSTRAINTS OF NATURE TOURISM DEVELOPMENT

In general, the opportunity for nature tourism development in Indonesia is promising, especially given the increasing number of nature tourists in recent years.

Favorable factors driving the development of nature tourism in Indonesia are:

- stability of the country;
- technological advancements to facilitate comfort;
- growing enthusiasm in developing this sector; and
- a simplified process for obtaining utilization permits for protected areas.

Constraints that will likely occur are:

- failure to coordinate the development of infrastructure, either for management or visitors, when developing nature tourism;
- limited personnel capabilities especially given the qualifications and professionalism needed in nature tourism management and tour operation;
- limited government funds and expertise to develop nature tourism and also a limited number of qualified tourism entrepreneurs;

- limited interest by funding agencies to support nature-based utilization in protected areas; and
- low levels of promotion and marketing of various nature tourism products.

RECOMMENDATIONS

The development of nature tourism should be linked with sustainable development. To achieve this goal, all parties involved in, or concerned with, this industry should take more active roles. WALHI (Indonesian Forum for Environment) proposes some general recommendations:

- Planning and development of nature tourism should be carried out in an integrated manner among related departments and agencies. This should occur at the central or regional level through working groups on nature tourism. These should involve: local communities, entrepreneurs, NGOs who work on environment and community development, and other concerned parties.
- A tight zoning system that matches zones used for related activities should be implemented and improved. In addition, tourism sites should be developed according to their own international comparative advantages.
- A mechanism should be developed where income captured from tourists is funneled back to finance conservation efforts in the given areas and local communities. Local residents should not simply be employees in the industry, but should become involved as entrepreneurs. Training in related businesses is necessary to encourage entrepreneurship. As far as possible, local components should be used to optimize the economic benefits to the local communities.
- The maximum threshold of visitors according to the carrying capacity of tourist sites either ecologically or socially, needs to be determined.
- Tour guides need to be trained to achieve a good command of English or other languages, and become familiar with hospitality expected by foreign visitors. The quality of tour guides is very crucial for the success of the industry itself.
- Interesting promotional materials (books, leaflets, brochures, etc.) need to be developed and distributed.
- Access to visiting permits for conservation areas

needs to be made easier, considering the limited available time of tourists.

- Development assistance from agencies like the U.S. Agency for International Development are badly needed for the development of nature-based tourism. This need arises because the interest of the private sector is still lacking and the government of Indonesia has limited budgets for investments. Development of this industry will open access to isolated areas and will enhance the economic activities of local communities.

CONCLUSION

Tourism has become an important contributor to Indonesian foreign exchange earnings as well as providing employment for more than a million people. This role will surely increase in the future as the Indonesian government is targeting a goal of 2.5 million tourists, with earnings up to US\$ 2,250 million, for 1993. To achieve this target, conducive policies are needed to develop and manage infrastructure and to attract private investments. Nature tourism needs to be intensively managed, and aggressively promoted in countries that are main tourist sources of travel to Indonesia. This should be done in conjunction with the marketing of interesting and diversified tourism products. It is important to remember that Indonesia has to compete with other ASEAN countries which offer similar tourism attractions. Therefore, Indonesia needs skills in scrutinizing the comparative advantage that can really attract international tourists.

Lastly, dispersed nature tourism in many parts of Indonesia is more meaningful than in certain concentrated areas. Evidence has shown that development of mass tourism, concentrated in few places, often causes tourism sites to exceed their carrying capacity, thus damaging the environment and the cultural values of local communities--the opposite of the goal of nature tourism.

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NATURE TOURISM IN SRI LANKA: ACTIVITIES, CONSTRAINTS, AND POTENTIAL

Pani Seneviratne

INTRODUCTION

Nature Tourism Defined

The motivation for tourist travel has been analyzed from varying perspectives. The primary inducement, however, was effectively summarized by Lowe and Moryadas (1975):

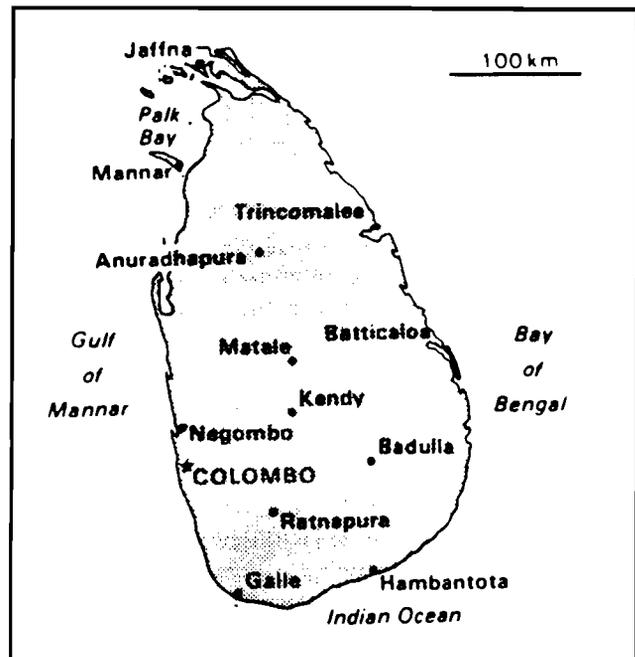
Movement occurs to the extent that people have the ability to satisfy their desires with respect to goods, services, information or experience at some location other than their present one, and to the extent that these other locations are capable of satisfying such desires.

This definition can be expanded to further understand the desires of tourists. A variety of authors have applied economics and psychology to explain tourist actions. Plog (1973) applied a psychographic segmentation to tourists, ranging from those content to visit familiar areas (psychocentrics) to the more adventurous ones seeking new experiences and new places (allocentrics). Turner and Ash (1973) discovered a "pleasure periphery" surrounding regions of economic affluence. Thurot (1973) saw the evolution of tourism as a process of discovery on the part of the rich.

More recent surveys on tourism have produced complementary data that show that tourism is dependent on the economic ability to travel and a desire to go to different places. Burfitt (1983), for example, in a survey of potential New Zealand travellers to Australia, identified four major segments of tourists:

- Older relaxation/comfort seekers;
- Young excitement seekers;
- Nature/culture groups; and
- Unadventurous sightseers.

This survey was among the earliest to spotlight nature tourists as an important market segment.



Central Intelligence Agency, *The World Factbook* 1991.

Nature tourism is separated from mass tourism in that it has two essential aspects, both based on the natural environment: as tourist attractions themselves (e.g., fauna and flora, scenic areas) and as a means to facilitate a tourist activity (e.g., ski slopes, water bodies used for aquatic sports, mountains used for trekking).

Nature tourism typically includes a variety of outdoor activities such as camping, hunting, fishing, skiing, boating, animal watching, marine exploration, etc. To be successful, these activities are dependent on attractive beaches, scenic areas, wilderness, exotic flora, and other natural attractions.

Nature tourists can be divided four categories:

- Visitors who observe or experience nature passively;

- Visitors who engage in an activity or sport based on a natural resource;
- Visitors with a special interest or hobby related to natural phenomena or natural resources; and
- Visitors interested in serious research or study of natural phenomena or natural resources.

Examples of the first category are tourists who visit a destination to experience a healthy atmosphere, enjoy the scenic beauty, or view wildlife. The second category includes tourists who engage in aquatic sports, underwater photography, skiing, or golfing. These two categories of tourists may not easily fall into exclusive groups of nature tourism, but may be a part of a composite tour package. Such packages may also include cultural sites, festivals, etc. The last two categories, however, fall into more distinct groups of travellers whose choice of destination depends on their own special interest in nature activities or study. Bird-watchers, plant collectors, ornithologists, zoologists, botanists, geologists, fossil collectors, and nature photography enthusiasts who travel extensively in pursuit of their special interest are the types of tourists who fall into the last two categories.

TOURISM DEVELOPMENT IN SRI LANKA

Sri Lanka began planning for tourism in 1966, when a consortium of companies led by Honolulu-based Harris, Kerr, Forster and Co. was commissioned to prepare a 10-year master plan for tourism development. The plan was presented to the government in 1967. The planners identified the following principal tourism resources for development as tourist attractions:

- The city of Colombo as a business center;
- Cultural heritage sites, in particular the ancient cities of Sigiriya, Polonnaruwa, Anuradhapura, and Kandy (the ancient capital of the island);
- The scenic hill country; and
- Sea beaches, of which Sri Lanka has nearly 1000 miles.

Thus, attention was focused only on two main nature tourism resources in the master plan--beach areas and the hill country. Hotel development roughly corresponded with the attractions identified, but the development of facilities lacked adequate planning. This was due primarily to the fact that demand outstripped the supply of facilities.

Facilities Development

Early tourism and development in Sri Lanka was highly dependent on government boards for implementation. The specific design was prescribed in the Tourist Development Act, No. 14 of 1968. This resulted in the establishment of National Holiday Resorts (NHRs) by the Ceylon Tourist Board. The Board acquired land close to identified attractions and developed the infrastructure. Later, the Board leased plots of land to hotel developers on very attractive terms. As the owner of the land, the Board was able to impose terms and conditions governing design, space utilization, and sub-lease activities. Six areas were originally targeted for development: Hendala, Bentota, Koggala, and Amaduwa on the west and south coasts; and Passikudah and Trincomalee on the east coast.

After an initial survey of the island, Bentota and Passikudah were established as full-fledged resorts with on-site resort administration, while plots of land in the Koggala resort were leased without any service facilities being provided. In other areas, development preceded government involvement as private developers invested in tourist facilities. For example, in Hendala, private developers established hotels without any inducement from the government. Still, the other areas remained underdeveloped. What was to be an organized approach to tourism facility development turned out to be haphazard, relying more on demand rather than government acts.

Fiscal and Financial Incentives

In 1966, when the original master plan for tourism development was prepared, 18,969 foreign visitors to Sri Lanka were recorded. This was hardly sufficient to induce prospective investors to support tourism facilities development. Substantial fiscal and financial incentives had to be offered to stimulate development.

The main incentives provided by the government were the following:

- Five-year tax holidays for companies that constructed hotels;
- Five-year tax holidays on income and profit from the operation of hotels;
- Fifteen year half-tax holidays after the expiration of the full tax holiday on income and profit;
- Ten-year holidays on hotel projects with an equity capital of not less than Rs. 100 million, and a project outlay of not less than Rs. 500 million;

Table 1: Tourist arrivals in Sri Lanka 1972-1976

	1972	1973	1974	1975	1976
Tourist Arrivals	56,047	77,888	85,011	103,204	118,971

Table 2: Occupancy rates (percent)

	1980	1990
Colombo City	70.7	49.1
Greater Colombo	64.1	45.7
South coast	52.2	45.6
East coast	47.3	-
Hill country	34.2	37.5
Ancient cities	54.3	51.1
Northern region	25.4	-

- Lump-sum depreciation on some categories of equipment, furnishings, and fittings;
- Custom duty concessions on the import of items for constructing and equipping hotels; and
- Development loans at low rates of interest.

Through the above government subsidies, the private sector was to build enough tourist facilities to meet future demands.

Hotel Clusters Other Than National Holiday Resorts

Sri Lanka's increase in tourist facilities was followed by a tremendous growth in the number of tourists visiting the country. By 1972, the number of tourists had exceeded 50,000 and by 1975, the number had doubled to over 100,000 (Table 1).

The availability of the incentives discussed earlier spurred investors to respond to the upsurge in demand with little or no time lag. The result was that National Holiday Resorts were filled to capacity, and accommodation facilities spilled over to the private sector. Compared to a total of 1,170 rooms in National Holiday Resorts, Sri Lanka now has over 10,000 registered rooms. This is a measure of the degree to which the Ceylon Tourist Board's ability to regulate the location, design, and space utilization by hotel developers has diminished and the private sector has taken over.

There is also a substantial informal sector whose accommodation facilities were patronized by nearly 50 percent of the tourists visiting the country in 1982, the peak tourist year. Today, however, this proportion has dropped to about 30 percent. The accommodations in this sector are mostly residential buildings converted to guest houses, or rooms rented out in residential homes. There is comparatively little new construction in the informal sector.

The Ceylon Tourist Board did not establish National Holiday Resorts in the hill country, but the towns of Kandy, Nuwara Eliya, and Bandarawela have a substantial concentration of hotels. This is the result of private enterprise with minimal support from the government.

While the development of accommodations continued well into the mid-eighties due to the incentives granted, the steady decline in tourist arrivals since 1983, as a result of civil strife, created a situation of oversupply and low occupancies (Table 2).

TOURIST PROFILE

Source of Tourism

Sri Lanka's sunny beaches and warm weather draw a predominance of Western European visitors. The high propensity to travel among Europeans during the winter and the fact that the European winter coincides with Sri Lanka's dry season makes the country particularly appealing. Western Europeans are followed by

Table 3: Country of residence for tourists in Sri Lanka, 1982-1990

	1982	1988	1989	1990
North America	15,528	6,534	5,844	8,084
Latin America/ Caribbean	532	396	300	330
Western Europe	232,290	111,426	101,910	169,294
Eastern Europe	4,160	3,386	4,544	7,562
Middle East	3,702	2,736	2,286	3,122
Africa	3,096	480	400	578
Asia	135,088	53,712	66,428	100,004
Australasia	12,834	4,448	3,992	8,914
Total	407,230	182,662	184,732	297,888

**Table 4: Purpose of visits to Sri Lanka, 1981-1990
(percent)**

Purpose of visit	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Pleasure	89.5	88.7	90.8	94.5	90.9	93.9	89.1	90.4	92.1	93.2
Business	6.6	6.7	4.7	3.4	7.4	4.4	8.5	7.5	6.4	5.1
Visiting friends and relatives	1.2	1.7	1.3	0.6	1.0	0.8	1.3	0.6	0.3	0.6
Religious/cultural	1.1	1.2	0.7	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Others	1.6	1.7	2.5	1.3	0.6	0.8	1.0	1.4	1.1	1.0

other Asians as the top tourists to Sri Lanka (Table 3). However, unlike many Asian countries, Sri Lanka has a relatively small number of North American and Australian tourists. In 1990, the number of Western Europeans tourists was over 20 times the number of North Americans and over 18 times the number of Australians.

Motive for Travel

An analysis of tourists by their purpose of visit shows that most travel for pleasure (or leisure and recreation) purposes (Table 4). Nature tourism is included in the "pleasure" category.

Age and Gender Profile

The number of males visiting Sri Lanka is usually more

than twice the number of females. Statistics for male and female tourists have been relatively constant over the past ten years (Table 5).

More than 60 percent of visitors in recent years are 20-39 years of age. In 1982, 1983, and 1984, the number of younger tourists increased to over 70 percent of the total visitors.

There was a noticeable drop in the proportion of visitors above the age of 40 from 1982 onward (Table 6). This coincides with a drop in the number of tour groups which are primarily comprised of older individuals.

Asian Visitors

The number of European visitors dropped from approximately 232,000 in 1982 to 169,000 in 1990. How-

**Table 5: Gender profile of tourist population, 1981 to 1990
(percent)**

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Male	67.1	70.5	72.1	65.9	64.8	70.9	69.2	69.8	62.9	60.3
Female	32.9	29.5	27.9	34.1	35.2	29.1	30.8	30.2	37.1	39.7

**Table 6: Age profile of the tourist population, 1989-1990
(percent)**

Age	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
3-19	3.7	4.1	7.2	6.3	5.8	15.5	11.1	10.1	7.6	7.6
20-29	35.5	34.1	41.2	39.5	34.3	31.8	29.8	30.2	30.1	30.4
30-39	27.6	38.1	32.7	31.0	29.1	40.5	38.8	39.5	39.7	37.0
40-49	18.8	14.3	8.4	11.1	17.9	6.3	8.6	8.1	8.9	12.4
50-59	10.0	6.4	7.9	9.8	8.5	2.0	6.6	8.1	8.3	6.7
60 and over	3.9	3.0	2.6	2.6	4.4	3.9	5.1	4.0	5.4	6.3

ever, these decline was offset by an increase in Indian visitors. Indians come to Sri Lanka primarily for duty-free shopping in Colombo. A large majority of them do not use hotel facilities. Some have even been known to spend the night in railway stations. Their visits are financed by Indian merchants who purchase the goods for resale.

While European tourists arrive principally for a beach holiday, most Asian visitors spend most of their time in urban centers or in the interior. Many Asians also visit ancient sites which have religious significance.

Domestic Tourism

Statistical data on domestic tourism are incomplete. However, according to available information, domestic tourism has not greatly developed because of the lack disposable income for the majority of the population. It is usually the more affluent urban residents who undertake leisure trips. The middle class and rural population frequently go on pilgrimages, traveling by public transport or inexpensive hired vehicles.

ECONOMIC SIGNIFICANCE OF TOURISM

In Sri Lanka's post-colonial export-import economic structure, three primary products--tea, rubber, and coconuts--dominate the export trade. Their export earnings alone account for over 50 percent of the total.

In 1981, earnings from tourism surpassed earnings from coconut products for the first time. Furthermore, in 1982, tourism earnings overtook export earnings for both rubber and coconut products. However, due to internal civil strife in 1983, earnings from tourism declined steadily from 1982. Yet the industry still has the potential of becoming one of the country's top foreign exchange earning industries.

From 1970-1980, tourism's contribution to GNP grew at 57.1 percent per year while GNP for the entire economy increased only 19.1 percent. By the end of the decade, the contribution of tourism to GNP was 2.5 percent compared with 2 percent for Nepal (a country with a significant tourism growth rate), 0.5 percent for India and Pakistan, and 0.01 percent for Bangladesh. However, the figure for 1989 declined to 1 percent due to the post-1983 slump.

Tourism also contributes to Sri Lanka's economy through employment generation. In 1990, the tourist industry provided direct employment for about 25,000 people and indirect employment for more than 30,000. In 1982, the peak year for tourism, the industry employed about 27,000 directly and about 37,500 indirectly.

NATURE TOURISM

Sri Lanka is endowed with a variety of natural resources that could be appealing to many nature tour-

ists. Between the beaches and the wildlife, the country offers an array natural splendor. Furthermore, 12 percent of the island (40 percent of the forested area) is protected by the Department of Wildlife Conservation. This includes 10 national parks, 2 strict natural reserves, 2 nature reserves, 1 jungle corridor, and 44 sanctuaries. Sri Lanka also has two internationally recognized United Nations Man and the Biosphere Reserves: Sinharaja and Hurulu Forest Reserves.

However, nature tourism in Sri Lanka is currently constrained by civil strife and by the lack of nature tourism development. These factors keep Sri Lanka from reaching its potential in terms of nature tourism.

Nature Tourism Resources

Beach and Marine Resources

Beach holidays consist mainly of sunbathing and swimming in the shallow seas. Sri Lanka's vast beaches also provide a variety of snorkeling and scuba diving opportunities. Some of the best scuba diving and snorkeling spots are situated north of Negombo and south of Mannar over the reefs of Arippu and Silavaturai. These locations are remote and require some "ground safari" to reach the areas.

Colombo also has a reef, but it is not always clear for good diving. However, there are a few reefs one to four kilometers out from Colombo that are rewarding for scuba divers. South of Colombo, near the river estuaries at Kalutara, Beruwala, and Bentota, the constant flow of fresh water has discouraged the growth of

coral. However, for scuba divers who can go deep, there are reefs full of life.

The premiere place for underwater activity on the island, is Hikkaduwa. It is described as a diver's mecca and is rich in marine life. There are also several shipwrecks to explore in the area, including the wreck of the *Hermes* which sank in 1942 and is now one of the world's most amazing underwater sights. Diving schools are located at Hikkaduwa, Bentota, Beruwala, Seeduwa, and Negombo.

Other water-based tourism activities in Sri Lanka include whale watching, windsurfing, and sightseeing by boat. For years blue sperm whales have been sighted off the coast of Trincomalee.

Marinas, an important feature of sea and beach oriented tourism in other countries, are totally absent in Sri Lanka. One marina was included for Trincomalee in the tourism Master Plan of 1967. However, the plan has yet to be implemented, although the required land has been guaranteed by the Ceylon Tourist Board.

National Parks

Sri Lanka has numerous national parks offering nature-oriented activities for tourists. A visit to one of the national parks is a regular feature of many arranged tour packages in Sri Lanka. Statistics of visitors to the parks are maintained for four well-known sanctuaries: Yala, Uda Walave, Horton Plains, and Wilpattu (Table 7). Figures for domestic tourists are not recorded separately.

Table 7: Visitors to national parks in Sri Lanka, 1982-1990

	1982	1987	1988	1989	1990
Yala	59,849	7,474	4,534	7,307	23,031
Uda Walave	-	352	221	54	71
Horton Plains	-	-	998	1,299	-
Wilpattu	11,800	-	-	-	-

Table 8: Revenue of national parks in Sri Lanka, 1982-1990

	1982	1987	1988	1989	1990
Yala	46,260	12,694	7,129	10,135	28,366
Uda Walave	-	598	347	74	-
Horton Plains	-	-	11,531	1,802	-
Wilpattu	25,261	-	-	-	-

Unfortunately, visits to parks have dwindled in the past few years largely because of civil unrest in the park areas. Less than 10 percent of all visitors to Sri Lanka visited national parks in 1990. The Wilpattu National Park, 176 kilometers north of Colombo, had to be completely closed to visitors because the area is a militant stronghold.

All tourists who visit national parks are charged a park fee of Rs. 100 and a vehicle fee of Rs. 10 (US \$1 = Rs. 10). Visitors can take 2-hour conducted tours in Yala National Park for Rs. 50 per group. Groups can also rent jeeps for Rs 625, or purchase a mini-coach tour seat for Rs. 140 (Table 8). Entry into Yala National Park is restricted to 30 vehicles at a time.

Descriptions of the country's most popular parks are provided below:

- **Yala (Ruhuna) National Park**

Situated 309 kilometers south of Colombo by road, Yala occupies approximately 1,259 square kilometers of southeastern Sri Lanka. Its northern boundaries are adjacent to the Lahugala Elephant Sanctuary. The terrain of the park varies from flat plains to rocky outcrops, and vegetation ranges from parkland to dense jungle. Water-holes, small lakes, lagoons, and streams provide for animals and birds. Elephants are abundant in the park.

- **Wilpattu National Park**

Situated 176 kilometers north of Colombo, Wilpattu is approximately 1,908 square kilometers. It has a dense jungle cover and numerous small lakes. Leopards and sloth bears are common in the park.

- **Gal Oya National Park**

Situated at Inginiyagala, 314 kilometers from Colombo into the interior, Gal Oya is renowned for its elephant population

Mammals

Of the 86 species of mammals in Sri Lanka, the most conspicuous is the elephant. However, the rapid destruction of its habitat has depleted the elephant population over the years. There were about 22,000 elephants at the turn of the twentieth century, but now there are only about 3,000--of which only about 150 are active breeding males and about 600 females capable of calving. Sizable numbers can still be seen in Gal Oya and Lahugala National Parks.

The leopard, another intriguing mammal found in Sri

Lanka, is also threatened with extinction. Other mammals that can be seen at the different parks include the sloth bear, the dugong, the porcupine, and a variety of monkeys and deer.

Birds

Of the 431 recorded species of birds in Sri Lanka, 251 are resident and no less than 21 are endemic to the island. The best areas for birds are the Sinharaja Forest Reserve and the Peak Wilderness Sanctuary. Around mid-August, the first flocks of the 169 species that winter there begin to arrive. This includes a large number of sandpipers, stints, plovers, and terns which come from Siberia and Western Europe. Migratory tree warblers, thrushes, cuckoos, and larger water birds also make their way to Sri Lanka.

Sri Lanka has a number of bird sanctuaries across the island. Sanctuaries at Kumana, Wirawila, Bundala, and Kalmetiya are located at lagoons in the extreme southeastern coast of the island. Additional sanctuaries are located in the northwestern corner of the island at the Giant's Tank and in the highland areas at Udawattekele and the Peak Wilderness Sanctuary.

Butterflies

Of the 242 known species in Sri Lanka, most butterflies are found in the lower foothills up to 910 meters. Six species can be spotted above 1,210 meters. The seasonal migration of butterflies during March and April is an interesting spectacle to watch.

Flora

Sri Lanka is home to the oldest living tree in documented history. The Bo tree was sent from India around the same time Buddhism was introduced to the island. The tree is in Anuradhapura and is an object of reverence.

Plants are also of particular importance and interest in Sri Lanka because of their medicinal values. Every plant known to have value for the native system of medicine *Ayurveda*, is found in Sri Lanka.

The Department of Wildlife Conservation is entrusted with managing the forests and Man and the Biosphere Reserves. The most important nature reserves are Horton Plains, the Knuckles Range, and the Peak Wilderness Sanctuary. Of the Man and the Biosphere Reserves, the most important is the Sinharaja Rain Forest Reserve. Udawattekele, in Kandy, and the Sinharaja Forest also have historical significance as they were declared nature reserves by ancient kings.

Sinharaja Forest

Of the many forested areas, the Sinharaja Forest is of particular importance to Sri Lanka. Under the United Nations Man and the Biosphere Programme, the Sinharaja Forest is categorized as a tropical lowland forest in the Indo-Malayan region. Furthermore, the National Heritage Act of 1988 proclaimed it as a national heritage, protected by the Ministry of Lands. Lastly, it is also on the World Heritage list. The reserve is dense with growth and around 2,400 plants per one hectare of land have been recorded.

Zoological Gardens

An additional tourist attraction that may appeal to nature tourists is the National Zoological Garden at Dehiwala. The gardens are only 11 kilometers south of Colombo. It was once reputed to be the best zoological gardens in Asia and is still a source of tourist revenue for Sri Lanka.

Botanical Gardens

Sri Lanka's botanical gardens are also associated with nature tourism. Of Sri Lanka's three botanical gardens, the Peradeniya Gardens have the widest variety of plant species. It is also easily accessible--the entrance being close to the main highway from Colombo to Kandy. The Hakgala Gardens are approximately 2000 meters above sea level and only visitors to the hill country include it on their schedules. Lastly, the Gampaha Gardens in the western province are away from the main tour routes of foreign visitors and therefore, have few visitors.

Fly Fishing

Fly fishing provides to opportunity for nature activities not usually associated with Asia. In Sri Lanka, fly fishing for trout is available at elevations of 5000-6000 feet in the Nuwara Eliya District. Fishing is controlled by the Department of Wildlife Conservation and permits are obtained from the Game Ranger at Horton Plains. The cost if a permit is Rs. 50 for residents and Rs. 250 for non-residents per day.

Hill Country

For the majority of foreign visitors, the hill country, with its cool climate similar to autumn in Europe, is not as popular as the beaches. Although the hill country is noted for its ancient cities and scenic beauty, it does not have the appeal of the beaches. The lack of mountain trekking in Sri Lanka also makes it difficult for the hill country to compete with other Asian countries. Tourists looking for mountain activities are drawn to coun-

tries with more established mountain tourism. The hill country is, however, popular with domestic tourists.

PROBLEMS AND OBSTACLES CONFRONTING NATURE TOURISM

Tourism and Nature

Commercial activities involving natural resources frequently lead to the destruction, depletion, or pollution of that resource. When tourists are attracted to an area by the presence of natural features such as beaches, scenic venues, or fauna and flora, developers begin to establish tourist facilities nearby. The larger the tourist population, the greater the proliferation of tourist facilities. As a result, government intervention may be necessary to regulate the use of natural resources (e.g. park entrance fees) and show the necessity of conservation.

The short-term effects of the excessive use of natural resources activities are:

- Overcrowding;
- Intensive construction of buildings; and
- Plundering of natural resources through souvenir collection.

The long-term effects such as the precipitation of natural disasters--soil erosion, deforestation, and depletion of marine resources--may not be immediately apparent. This gives the appearance that tourism is not effecting the environment. In reality, however, the impact from tourism on the environment is very real.

Adverse Effects of Beach Tourism

Over-development is already taking its toll on Sri Lanka's beach areas. The principal motorway skirting the west and south coasts from Puttalam to Hambantota, was constructed very close to the beach, leaving only a narrow strip of land between the beaches and the roads at many points. Most of these strips have been used for hotel construction because of the proximity to the beach. The result is the total obliteration of the view of the sea from the motorway at many scenic locations.

Construction on the beach also poses problems of accelerating sea erosion. This is especially apparent during the rainy season and at high tides. Erosion has already occurred at many of the tourist spots.

Waste Disposal

The cluster developments on the beach present addi-

tional environmental hazards because of the lack of centrally planned waste disposal systems. This is perhaps the most neglected aspect of tourist development and requires urgent attention. Under current development, each establishment is left to devise its own disposal system. The most common method has been the soakage pit within each development. It is usually installed without regard to the low capacity for ground absorption due to the high water table. There have been a few cases of overflow or leakage onto the beach. Many establishments resort to periodic evacuation of pits to prevent overflow. There are also many instances of kitchen waste being drained directly onto the beach, particularly in Hikkaduwa.

It should be noted that centralized disposal systems have not been planned even for the National Holiday Resorts established by the Ceylon Tourist Board. Work on a centralized sewage disposal scheme using a trickling filter started at the resort at Bentota in 1988, but was abandoned for several reasons including lack of funding and lack of cooperation from the area hotels.

Depletion of Marine Resources

As hotels and roads encroach on the beach, and sewage pollutes the water, the surrounding marine resources begin to suffer. For example, the coastal town of Hikkaduwa was developed as a tourist resort because of the presence of the bountiful exotic marine life offshore. Today, this resource is largely depleted due to sample collecting and the discharge of waste into the coastal waters.

CORRECTIVE ACTIONS

Urban Development Authority

Apart from the rapid increases in tourist arrivals in the late seventies, and the fiscal incentives offered to hotel developers, an additional reason that led to the proliferation of tourist facilities was the desire to increase local revenue. Local government officials resorted to approving projects without restrictions to encourage growth. The establishment of the Urban Development Authority, which exercises control over planning approvals, has restricted further tourism development in these towns.

Zoning Plan

To address the growth of tourism facilities, a zoning plan for tourism development on the coastal belt was prepared in 1982. The following organizations participated: Ceylon Tourist Board, Coast Conservation Department, Department of Wildlife Conservation, Ministry of Fisheries, Surveyor General's Department,

Urban Development Authority, and the Ministry of Local Government. The plan divided the coastal belt of the island into segments and prescribed limitations on development where applicable. The plan took into consideration the competing uses of the beach. However, it did not identify sites recommended for development at the micro level. Furthermore, the recommendations of the committee were not legally binding and implementation was only possible through administrative cooperation. The report, however, was useful in creating awareness of development needs.

The committee recommended that there should be no tourist facilities developed in areas abutting beaches if there is a competing demand from other industries or activities such as fishing. A similar recommendation was made for areas in proximity to proposed or existing marine sanctuaries and wildlife reserves. Areas in which intensive tourist development has already occurred were also excluded from any further development. Where development was permitted, set-back distances from the beach were stipulated.

Opinions on this matter have changed somewhat since the 1982 report. Today, planners believe that certain restricted areas should be opened for development. An example is the south coast, where no development was recommended beyond Tangalle.

The zoning plan may now be revised to take current thinking into account. The revised plan should enable policy makers to identify sites for development at the micro-level instead of broad segments of the coast being designated for development as in the past.

STRATEGIES FOR NATURE TOURISM PROMOTION AND DEVELOPMENT

Inventory of Nature Tourism Resources

There is no systematically compiled inventory of nature tourism resources in Sri Lanka. Such an inventory would be a valuable tool for planning and marketing nature tourism. Desk research and field research are both required to compile a comprehensive inventory. In 1988, a team of experts from the Pacific Asia Travel Association visited Colombo to advise the national tourism organization on the preparation of an inventory of all tourism resources on the island. However, the project was not implemented due to lack of funds.

Market Research Survey

A market survey is required to identify target markets for nature tourism if promotional expenditures are to be cost effective. Such a survey should identify tastes,

preferences, and special interests of potential visitors, and collect data on the propensity of tourists to travel, distances to be travelled, and willingness to pay.

Without such marketing information, it will be hard for Sri Lanka to ensure rapid growth in nature tourism. At present, the travel industry is content to sell traditional products with a combination of beach, ancient cities, and wildlife (national parks) attractions. A recent study by the World Tourism Organization forecasting growth trends to the year 2000, indicates that the average tourist is getting bored with the stereotyped packages being sold and that an emerging trend is for greater individual choice for vacations. To meet this demand, travel agents and tour operators in Sri Lanka must be innovative in offering a wider choice of vacations. Nature tourism in Sri Lanka has tremendous potential if it focuses on the rising trend for individual choice among travellers.

Conservation

Unlimited growth in one area can lead to saturation and the final destruction of the very resource that originally attracted tourists to the location. Therefore, carrying capacities have to be computed with respect to every resource and individual site. Incentives may be offered to developers who locate facilities in preferred areas.

National Parks

There is a dearth of expertise in management, maintenance, and promotion of national parks in tourism. The tendency in the past has been to restrict the use of the parks for tourism. However, there are additional forms of conservation that need to be considered.

The placement of tourist hotels in proximity to parks has been discouraged, and buffer zones of 10-mile radii have been created. A more innovative approach to conservation need not restrict visitors from enjoying the park. Perhaps, there are lessons to be learned from countries like Kenya. Sharing of knowledge through visits and fellowships may help make better use of these resources with less damage.

Open Zoo

An ambitious proposal to set up an open drive in the zoo in Pallekelle near Kandy is now being considered. The site appears to be well suited for the purpose, but the availability of expertise for the establishment of a well planned zoo and its continuing maintenance are doubtful. Some technical assistance and funding would ensure a properly executed project. The project would cost around US \$3 million.

Mountain Trekking

Considerable numbers of tourists from North America visit India and Nepal for adventure tours, particularly mountain trekking. Sri Lankan travel agents have never promoted this activity and the potential in the hill country remains unexploited. Familiarization visits by trade representatives from North America would be useful in identifying suitable locations for development. The Ceylon Tourist Board could host such a delegation.

NGO Activity

The Wild Life and Nature Protection Society, based in Colombo, is deeply committed to encouraging tourism that sustains natural ecological systems and retains the "naturalness" of resources used. The society promotes the 'utilization' (it objects to the word development) of natural assets for tourist viewing and trekking. However, it does not favor intensive use of nature for tourism as in Africa. The Society encourages more passive activities such as the use of nature trails in the Sinharaja Forest and Horton Plains, and visits to the marshes of Maturajawela and Attidiya for bird watching.

The Society also promotes trekking in Ritigala, which is described as a unique high-elevation dry-zone forest. It is situated near the ancient rock fortress of Sigiriya, included on the World Heritage list. Local interest and expertise at the Society should be consulted when making nature tourism plans and policy.

Local Population

There are small village settlements both within and immediately outside the boundaries of nature reserves and national parks. They are usually economically less developed than other parts of Sri Lanka. The livelihood of the inhabitants depends on small scale agriculture or handicraft production from raw materials available in the jungles. While most of the time they live in harmony with nature, they occasionally come into conflict such as when wild animals encroach on crops.

A study needs to be carried out to ascertain the best means of upgrading villagers' economic status, while, minimizing conflicts with nature.

Tourism Master Plan

Lastly, a WTO-UNDP Project for the preparation of a 15-year Tourism Master Plan for Sri Lanka will soon be implemented. This presents an opportunity for a closer examination of the potential for promoting and developing nature tourism.

CONCLUSION

Sri Lanka has the resources and potential for developing a significant nature tourism industry. Currently, however, a number of factors are constraining such development. Most limiting is the civil unrest that restricts tourists from visiting many national parks. Sri Lanka also has difficulties in attracting tourists because its nature-oriented attractions are not always well publicized and, therefore, not known internationally.

With improved security conditions in the country, however, Sri Lanka can expect rapid growth in the nature tourism sector. Potential negative aspects of nature tourism can largely be overcome with careful planning, provision of innovative incentives, and an uncompromising commitment to resource conservation.

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